The Builder.

No. CXCIX.

SATURDAY, NOVEMBER 28, 1846.

AS it is now generally understood that there is something radically wrong in the management of the Government School of Design, we may venture to anticipate that an alteration will be made before long. We are most anxious to assist in bringing about this alteration, through no captious views, no personal likes or dislikes, but from conviction of the present inefficiency of the school, and an honest desire to see it productive of those advantages to the country which may reasonably be expected from it. This is no new cry with us. We pointed out, long ago, that things were not right there; and shewed students in rebellion, masters resigning, and the school disorganized. After that, quiet was restored, but it was not a healthy quiet. The cause of the previous disruption remained: no efforts were made to improve the system, though the disorder was forcibly kept down for a time: and the result is that, gradually acquiring force, the disease has again made itself visible. It is to be hoped this time, that the council, remembering that an eruption on the skin (wise dispensation of nature to free herself from objectionable matter), is the result of an evil, and not the evil itself,—will look deeper, and not think the cure complete till they have obtained a healthful system for the School of Design.

The efficiency of this establishment is as important to our readers, individually, as it is to any other section of the public, leaving out of the question its importance in a general point of view to all. It is to this we look for that intermediate class of artists, and artistical operatives, so much required in architectural decoration. A few statistical particulars, therefore, drawn from the fifth (last) report of the council, will not be considered uninteresting.

The amount of Parliamentary grant received for the year 1845-46 for Somerset House School was 2,286*l.*, and for annual aid to provincial schools 2,540*l.* The total amount of receipts available for the year ending April 30, 1846, was 11,089*l.* The total payments, 7,364*l.*

The estimated expenditure for current year is 5,381*l.*

The following gentlemen are the present instructors:—

Morning Classes.

MR. HENRY LE JEUNE.—Drawing and Painting the Figure.

MR. ALFRED STEVENS.—Drawing and Painting Ornament, Geometrical Drawing and Modelling.

MR. JOHN MURDOCH.—Assistant Master.

Evening Classes.

MR. HENRY JAMES TOWNSEND.—Drawing and Painting Ornament and Modelling.

MR. JOHN CALCOTT HORSLEY.—Drawing and Painting the Figure.

MR. CHARLES JAMES RICHARDSON.—Ornament and Geometrical Drawing.

MR. JOHN MURDOCH.—Assistant Master.

In the female school, there is a superintendent, Mrs. Melan (name not mentioned in the report), and a teacher of wood-engraving.

The average monthly number of students in 1845-46, was 212,—77 *less* than in the preceding year.

The annual grants to provincial schools were.

Manchester	£350
Birmingham	350
Glasgow	350
Nottingham	150
Norwich	150
York	150
Newcastle	150
Sheffield	150
Coventry	150
Paisley (proposed) with supply of furniture and examples of art	250
Stoke and Hanley, Staffordshire Potteries, (proposed) each with outfit	150
Leeds (proposed) with outfit	80

The monthly average number of students in provincial schools, was 1,246.

The Spitalfields' school received 350*l.*

The sum of 250*l.* has been paid on account of five numbers of a long talked of drawing-book, concerning which we should like to hear more. We have an indistinct recollection of a much larger sum, paid for a similar purpose long ago, and of a pile of copies unuseable, stacked away in Somerset House.

Let us return now to the present state of affairs. Mr. J. Townsend, the master of painting in the evening classes, and Mr. C. J. Richardson, another of the evening masters, have, separately, forwarded an address to the council (as already noticed by us) calling attention to the management of the institution. The remarks in these letters, which are carefully worded to avoid personal offence, fully bear out our previous conclusions, and are made "under a sense of public duty, and under the sincere conviction that *unless some change take place in the present management of the School, the hopes excited in this country, in reference to* DESIGN, *will receive but a very imperfect realization.*"

The chief objections urged are, that the management of the school does not embrace all those objects which ought to be aimed at in such an institution; and that the artists entrusted with the important duties of teachers do not hold a proper position.

"The present system of directorship," says Mr. Townsend, "whatever good may flow from it, is attended with inestimable injury, in the fact of its placing a barrier between the gentlemen who see the whole working of the school, viz., the masters, and the members of the council who see but little of it. The latter body is composed of gentlemen who seldom or never visit the classes, and who only occasionally attend the monthly meetings, all eminent in station, and some indeed engrossed by the absorbing duties of the state; the views, opinions, and policy, therefore, of the director for the time being, must necessarily have the most important influence,—must, in fact, mainly determine the educational and material advantages to be supplied by the establishment."

The evidence of both writers shews, that our head school of design is without a *bona fide* class of design! and that it is in fact nothing more than an ordinary drawing school.

Lectures are quite abandoned:—

"*At present* COPYING *is the plan laid down*, and thus, with the exception of occasional explanations from the director and masters, the pupil is led to no higher exertion of his faculties than the desire to *imitate*. Under the lecture system, he would be led to gradually examine every part of the studies requisite for the industrial artist; and thus, armed with knowledge, his skill would be enabled to blend into appropriate combinations that poetic sentiment which may be associated with the most humble objects. Nature would then present to him, as she did to the Greeks and the Gothic architects, the source of renewed ideas and energies, through the new perceptions awakened in his mind; because the poetic fancy discovers and appropriates—(after the due education of the eye and the hand in the embodiment of ideas)—the lines of grace and the suggestions of beauty in every ivy and lichen that decorates the ruined wall, every tendril of the convolvulus, or wisp of the wild hop, that calls up a sense and feeling of elegance when looking upon a wayside hawthorn hedge. It is, indeed, in this delight of the *maker* of ornamental art that the moral effects of such education are most drawn out; while it is to the curious examination of his ideas of nature, as expressed with skill, transformed with meaning, or combined with ingenuity, that commerce owes the rising desire to *possess*, and the consequent value of the product as an object of barter."

Mr. Richardson urges the necessity of a *practical* course:—

"Our pupil should be encouraged to bring his shop patterns, the drawings he works from, no matter how dirty, provided they relate practically to his business. He should then, with the assistance the school would give, be taught to draw them again, and to mark the difference. If he has no such drawings, they should be supplied by the school: they do not require to be elaborate; a few dark lines, such as many theoretical persons would treat with contempt, are, in the early stages, of more use to the class of students with whom we have to do, than the most exquisite Italian drawings. We have silver-smiths, chasers, masons, lamp-makers, cabinet-makers, brass-founders, among the students. I need not remark upon the interest a young man would naturally feel in those matters that form his daily business; but I would ask whether his feelings of emulation would not receive an additional impulse, when he found he was in the way to elevate himself in his business, to be of more use to his employer, and to receive better wages?"

"As soon as the student has learnt the practical application of drawing to his own business, he should not only be permitted, but encouraged, to design, or draw out suitable matters connected with it."

The application of art to commerce or manufactures is actually prohibited:—

"I have never yet been permitted," says Mr. Richardson, "during the period I have been at the school, to give the slightest practical direction to the study of the pupils. I have always been instructed to make my tuition purely elementary, and have been always told that the young men must apply it as they best could to their several callings; and, for this strange reason, that were it not so, the young men would become drudges to their masters, who would reap a fortune through their acquirements. A most illogical deduction, it appears to me, that the designer should become a drudge, and the mere copyist should not.

In order to illustrate the system pursued, I would beg, my lords and gentlemen, to mention one case which occurred a few months since. One of my pupils, a young man, a master ironmonger, requested me to shew him how to draw an ornamental stove front. He had been some time in the School of Design, and was a good draughtsman. I accordingly set him to work, when the director interfered, took the young man under his own tuition, placed before him an elevation of the Temple of Theseus, from Stuart, and directed him to copy it by a scale of modules and minutes. In a few evenings the young man left the school. By the same system my three classes of ornamental drawing, architecture, and perspective, lost, in the middle of the season, from ten to fifteen of the senior pupils, who would willingly have remained, had they been allowed such a course of study as could have been practically applied to their several businesses."

And yet, what says common sense and Professor Waagen on the point?—

"The inventive powers of the artist ought equally to be brought to bear on the special manufacture which he is destined hereafter to pursue: this principle is judiciously adopted in the *Gewerb* institution at Berlin; in which, after one year of general instruction in art, the pupil selects a branch of manufacture which he has chosen: unless the arts and manufactures be practically combined, the unsuccessful

aspirants after the higher branches of the arts will be infinitely multiplied, and the deficiency of manufacturing artists will not be supplied."

The masters, it appears, are not allowed the slightest opinion as to the mode of study required by each class of pupils; one common routine is marked out for all. The whole of the copies to be placed before the students are selected for the masters, and their pupils are removed from class to class even without their knowledge.

Both writers agree in urging that the masters should be brought into more immediate connection with the council.

"The master, however, is the true cultivator of the field; *he* best knows what the soil requires, and where and how to distribute the seeds; on this ground I would venture to claim for his observations, that practical appreciation which is ever due to careful reasoning on accurately noted facts. What then must the council think of a system which, while making no official call for communications of this character from the masters, appropriates, smothers, or evades the volunteer suggestions of experienced teachers?—which renders men, whose education for their peculiar purpose has been that of a life, directly amenable, in their departments, to one of avowedly less knowledge or skill therein?—which nominally places them under the control and guidance of a score of eminent men, to whom all direct access is barred, so leaving them (the masters) at the mercy of any side-wind, misconstruction, or even misrepresentation? If it can be shewn, as shewn it can be, that, night after night, the real task of directing and instructing the classes has been intrusted to the masters, it will, I doubt not, be surprising that reports have been drawn up, as representing the annual proceedings of the institution, without a word of consultation thereon with a single master of the school!"*

Mr. Redgrave, who has addressed a letter to Lord John Russell on the state of the school, dwells even more strongly, as we are given to understand, on this point, and even questions the use of the office of director. He advises that the head masters should be removed from any such direction; that they should be liberally paid, and should be sent out to examine the foreign schools, and, into our own manufacturing towns, to learn the nature of the machinery and the real wants of the native designer. He strongly advocates the use of lectures on every branch of arts and manufactures, and a periodical free exhibition of all the drawings made by the students. With regard to a class for practical design, he speaks strongly, and affirms that without it the schools must continue mere drawing schools. We understand that the memorials have been referred to a private committee of the council, and that some considerable alterations in the management of the establishment may be looked for. Certain it is, that they are *imperatively* called for, and the council will ill discharge their duty to the public if they delay making them.

The importance of cultivating taste, and improving skill in design, is made every day more evident; the value of art, in a commercial point of view, is gradually becoming apparent to all, and with it comes a feeling of the importance of efficient management in the National School of Design.

PUBLIC ABATTOIRS, OR SLAUGHTERING HOUSES.—It is proposed to form a company for the purpose of erecting slaughtering-houses on the four sides of London, contiguous to railways and established markets. Existing interests will be strong opponents; but, that the improvement contemplated by the scheme will be effected one of these days, there can be no doubt.

* Townsend.

LEAVES FROM AN ARCHITECT'S DIARY.

IV.

SUPPLY OF WATER—GREAT DEFICIENCY—BATHS—PUBLIC CONDUITS—FACILITIES—PURITY.

—WHETHER or not hydropathy ought to have the credit, people certainly are becoming, more and more, water drinkers. As habits of temperance increase, we shall need still more of nature's own beautiful and delightful element. Trifling occurrences shew great changes in habits and manners. Accounts from Manchester say, that drinking wells are provided in the public parks, and that the committee of the late Athenæum soirée were especially careful to afford a copious supply of pure water. In many large towns, great exertions are being made to improve the supply; in some cases it is obtained from a long distance at much expense, in others, artesian wells are sunk to great depth for the purpose. Its importance in the sanatory improvement of towns is also beginning to be felt; and a few years hence, we shall look upon the present inadequate quantity in the metropolis, as betokening strange forgetfulness of one of our most important wants. With all the advantages of improvement, as in the mechanism of filtration, and the supply to houses—if these are modern inventions—we may yet take a valuable lesson from the former masters of the world. Centuries will pass, and not efface the traces of the aqueducts of ancient Rome, which formed continual streams, not only for the domestic wants of an immense population, but for the service of numerous baths, and those very sanatory purposes, for which it is most needed amongst ourselves, but which are altogether unprovided for. It is not only the uses of water that are manifold, but it contributes to the beauties of nature and the resources of art. The swift rivulet, or the mountain torrent, in the landscape, and the fountains in the city, attest the value of the clear element, as an ingredient of the beautiful in the works of nature and of art. We underestimate those gifts of nature, which are easily obtained, and even suffer privation, and deny ourselves much pleasurable gratification. Till the time of the attempts in Trafalgar-square, fountains were never thought of, as works for the embellishment of cities.—Wine has often been a theme for poetry; why might not an Anacreon sing the praises of water. That which imparts health to the body, satisfies a want, aids in every department of science, manufactures, and domestic economy, is the highway of nations, and the universal source of motion in the machine; purifies the air, and delights the sense, which is at once the most valuable and beautiful of all nature's gifts to man, should invoke a poetic strain, worthy to float upon the wave of time.

—In some parts of Spain, say friends who have tasted mélons there, when water is scarce, and would be denied, wine is plentiful, and is granted freely for the asking. Now we are so far worse off in London, that we cannot have the water, and do not get the wine. Were my chamber in Spain, I dare say I could, provided such were my "particular vanity," take a bath in wine, at some nominal outlay; here, sufficient water for a morning immersion can hardly be had "at any price." In London, a bath in every chamber would be a thing unknown before; a bath-room is quite uncommon. But a bath is just as desirable, in a room, as a wash-hand basin, and might be provided constantly, if there were a copious supply of water, or at least the option of having it, on each floor of a house. We are learning some of these things, but by very slow degrees.

—Connected with the subject, there is a matter worth thinking of, on the occasion of any attempt to improve the supply of water. In reading accounts of ancient London, we find frequent mention of the public conduits, which, if we except the works at London Bridge, erected at a late date, and not extensively useful, were the only means of supplying the wants of the inhabitants, until the completion of the New River works by Sir Hugh Middleton. Judging from the descriptions and drawings, many of them must have been very beautiful objects. They were elaborately decorated with the rich carving of the medieval artists, and were designed so that the water issued from them in jets and spouts of curious device. Many a pedestrian, in the dust and heat of summer, would be glad to stop at such a resting place; and could fountains or conduits of a similar kind be erected, they would form most pleasing features in the architecture of our streets. Whether it be, that the mind is sensible of any gratifying contrast with the toil of business, or that the motion of the water is always suggestive of beautiful impressions, certainly there are few adjuncts so desirable to the architecture of cities, and none, of which we are so unaccountably deficient.

—From the extraordinary carelessness, which has long been manifest, about providing a proper supply of water, we might almost suppose it to be unnecessary, or difficult of attainment. The last notion is the only one which it could be necessary to combat. As long as the country is blest with rivers, it is only necessary that the water should be diverted, or raised therefrom, to meet the most important object of improvements, the cleansing of sewers. Under a good plan, carried out with ordinary skill, there could be no difficulty. A supply of pure water is, of course, necessary for household purposes; and this it may be necessary to get from a distance; but the matter would be much less difficult of attainment, were the two objects considered apart from each other, as they really are. Under a proper arrangement of the sewers, with reservoirs at a sufficient elevation, supplied from the river, the whole of the metropolis could be washed out at any time, say once a day. The idea seems so simple, that many must wonder it has never been attempted; it might almost be supposed that a river did not exist in the neighbourhood, or that there was a fear of its being run dry. One thing seems certain,—this is the principle which some day or other must be carried out, and the sooner it is thought of the better.

—The difficulties about increasing the supply for ordinary purposes are themselves insignificant, though greater than in the other case. It is probable that artesian wells will be quite inadequate; and it has been stated somewhere, that water from the chalk strata is in some degree calculated to produce diseases of a serious nature. This matter of health cannot be too carefully considered, and will itself form a strong argument for incurring the expense of a supply from a distance, even when water might be obtained on the spot.—The injury which is likely to result, too, from the use of leaden cisterns, cannot be too often urged; and slate cisterns are now generally substituted. A writer in the *Athenæum* recommends, that when the leaden cistern cannot be removed, a *temporary zinc bottom* should be made to fit inside, and lay above the other, the zinc being taken out once a fortnight, and carefully cleaned. Unless the water hold certain salts in solution, which will prevent the usual result, the whole of the liberated lead, which would otherwise be taken into the human system, will be precipitated upon the zinc. For water-pipes, it is said that an inch or two of zinc, screwed on at the end, so that it can be taken off and cleaned, will be found to be effectual. But the best course is, obviously, to adopt some other material.

CARE FOR PUBLIC CONVENIENCE IN BELGIUM.—Although we are perfectly aware that laws and regulations look more *complete* on paper than they may be in reality, we were somewhat struck on looking over the nine *titres* and fifty-seven *articles* of the *Réglement sur les trottoirs* (regulations of footpaths), enacted and published of late, by the Lord Mayor and Common Council, at Brussels. Every thing relating to the solidity, regularity, and salubrity of public thoroughfares seems to be provided for with singular minuteness, of which we shall give our readers a specimen; selecting Titre II., Art. 16., stipulating that "*footpaths shall not be interrupted through carriage gates.*" The intervals comprised between the threshold of the carriage gate and the border of the footpath are to consist of two blocks of stone, of blue material, placed fan-like, one at the right, the other on the left side of the entrance, and transecting the footpath transversely—they shall be filled up, either by a paving in free-stone, of strong mason's work, and the surface thereof cut in oblique squares, of 10—12 centimmetres breadth each, or by a paving similar to that of the footpath; according to whether the administration will prescribe the employment of free-stone, or permit the use of common paving-stones. The edge of the border is to be rounded.

MANUFACTURE AND USE OF PLATE GLASS IN ENGLAND.

The demand for plate glass increases rapidly, and if it were reduced in price, as it might be, now that the trade is free from interference, would be much greater still. Mr. H. Howard has published a view of "Plate glass making in England in 1846, contrasted with what it was in 1827." The particulars are curious, and shew that large plates, which could not be made in 1827 for less than 10s. per foot superficial, can now be produced for something under 3s. per foot. The increase of sale which attended reduction of price is extraordinary. In 1827, plate glass sold for about (average) 12s. per foot, to the extent of about 5,000 feet per week; in 1836, from 8s. to 9s. per foot, about 7,000 feet per week; in 1844, 6s. to 7s. per foot, about 23,000 feet per week; in 1846, plate glass sells for from 5s. to 6s. per foot, about 45,000 feet per week, and is now nearly 50,000 feet per week, exclusive of foreign glass, which at these high prices is imported only to a very limited extent.

If the further reduction, pointed out by Mr. Howard, could be made, we are disposed to think, with Sir Robert Peel, "we should supply almost the whole world."

The remission of the duty on plate glass not only relieves the maker from the amount of duty, but frees him from many obnoxious restrictions, and so opens the door to many important improvements, by which great saving may be accomplished in the cost of production. This may be especially looked for in the item of coals, which now forms a much more considerable portion of the cost than may hereafter be necessary.

A new company has been provisionally registered for the manufacture of plate glass in the metropolis, where the advantage is obtained of a sand (Thames sand) excellent in quality, at a small expense.

IMPROVEMENT OF SHEET GLASS.

Mr. J. T. Chance and Mr. H. Badger have obtained a patent for improvements in the manufacture of glass. This invention relates—first, to an improved method of re-heating sheets, panes, plates, or other articles of glass, for the purposes of staining, painting, or enamelling. It has hitherto been effected by placing the sheets, or plates of glass, upon metallic shelves, in a muffle, and applying the heat externally; or by placing the articles upon the bed of a kind of reverberating kiln, which bed is either formed of stone or burned clay, and is well understood. By the first of these methods, it is difficult to keep the plates of glass from bending or becoming cockled; and in the latter, the direct action of the flame is injurious to the glass.

The first part of these improvements consists in applying the heat in such a manner, that the advantages of both the foregoing methods may be retained without their accompanying defects. In carrying out this improvement, the patentees place the articles to be re-heated in a reverberatory, on a bed, which they prefer to be of stone, and cover them with an inverted pan of sheet iron. This pan is furnished with an aperture in the top, to which is connected a tube leading to the outside of the kiln, in order to allow the escape of any vapour which may arise within the cover. The heat and flame are allowed to reverberate in the arch or roof of the kiln, and escape by the chimney, which should be furnished with a damper. In order to facilitate the working of this principle, the reverberatory kiln used is furnished with rails, to which suitable carriages are fitted, supporting the stone beds and covers on which the articles of glass are placed, and by this means more readily introduced and removed from the kiln, after which they are heated and cooled in the usual way. In order to save time, the beds and covers should be heated in another small kiln before being used in the reverberatory kiln.

Hull Glass Company.—We are requested by the chairman of this company to say, that the statements in foreign papers, respecting proceedings at the Hull Works,* are without foundation.

* See p. 545, *ante*.

RESTORATION OF COLOGNE CATHEDRAL.

We have from time to time made our readers acquainted with the progress of the restoration of this structure. A connected view of the circumstances attending it, condensed from the present number of *The Quarterly*, may nevertheless prove interesting.

"The cathedral of Cologne, after the lapse of six centuries since the first stone was laid, and nearly three and a half since the last was left, is now, as is generally known, once more advancing according to its original intention. Royal patronage has been extended—public enthusiasm excited—the original plans for portions of the building discovered—forests of scaffolding have arisen, and for four years, the silver sound of the trowel has resounded from morning till night around the old walls. Nor does it seem too visionary to expect, that the present generation will live to see the completion of one of the finest religious edifices which the world possesses."

"Without attempting to trace the history of Gothic architecture, or insisting either on the principle of practical utility, or the spirit of religious symbolism, for its real origin, we must yet remind the reader that, in the countries to which it distinctively belongs, its highest development was attained under three contemporary sovereigns of eminent talents, worth, and piety. Cologne Cathedral was founded in 1248—at the time that Frederic II. was Emperor of Germany, Henry III. King of England, and St. Louis King of France."

The Choir.—"This stupendous structure, itself 208 feet high, rises, as many of our readers have seen, out of a forest of piers and pinnacles, each attached to the building alternately by a double and fourfold row of gigantic flying buttresses, which break the bristling *chevaux de frise* of perpendicular lines, and relieve, though they amaze, the eye. Yet not placed there for any eye-service, but for the strictest use; the buttresses resisting the pressure of that enormous weight of roof, the piers weighting the ends of the buttresses, and increasing their strength; each pier a miniature church in itself, its shape that of a cross, rising into four corner spires, with one centre steeple or pinnacle; each spire and pinnacle edged at each angle by a row of crockets terminating in a finial—each crocket the *Marien Blume*, or flower of Mary, what we call the lady's slipper—each finial a rose, the emblem of mystery—whence the saying *sub rosâ;* while, from roof, and wall, and pier protrude innumerable grotesque pipe-heads—demons, dragons, monkeys, monstrosities; in the opinion of some, the fantastic creations of the architect's own imagination; according to Boisserée, imitations of the goblins and wood-demons in which the times believed; but according to the symbolist, representations of the bad spirits which the church holds without her walls, and yet compels to do her service."

"And here it may be as well to recall the precise state of incompletion in which (as some not distant generation may find it difficult to believe) the cathedral for so many centuries was left. The original intention comprehended choir and double transepts, a stately nave, with double aisles, a centre tower where nave and choir join, and two towers at the west end. The internal height of choir and nave alike, namely, 150 feet—that of the aisles and transepts 64 feet—the whole length of the building 500 feet, its width 150 feet, and the height of the towers 536 feet, which would have made them the highest in Christendom. Of this, the choir, as we have said, was finished, with a portion of the east wall of each transept. The north aisles had attained their destined height, the four great windows complete, with coloured glass in them, and seven compartments of the roof groined over. The south aisles had stopped midway, their interior piers having only reached the height of 42 feet, and the windows being arrested at the spring of the arch. The southern tower had grown up in two stories to the elevation of 170 feet. The northern tower stood like a tooth just piercing the gum—one pier partly *through* to the height of 22 feet, the rest still below the surface. Part of the façade of the northern transept was visible about 6 feet; and of such portions of both transepts, west front, and northern tower, as were not yet above the earth, the foundations were supposed to be perfect within. Thus there was a gap between choir and aisles, another between north and south tower, and a vacant space in the nave. In other words, the head was perfect, the shoulders just begun, the legs with one foot partly grown—but the whole body still wanting. For present use, therefore, temporary roofs had been thrown over the southern aisles and such compartments of the northern as had not been groined with stone. The gap between the choir and south aisles was filled up by a temporary wall; that between choir and northern aisles supplied by the intrusive Church of Sta. Maria, and a wooden screen run up between the two towers.

Thus stood, therefore, the incomplete form of an all-complete idea, from which, as from a text-book, almost every religious edifice erected contemporaneously had drawn instruction,—which had contributed to build Strasburg near, and to finish Burgos afar off, and which shews its helping influence in Freiburg, Ratisbonn, Prague, Utrecht, Amiens, Beauvais, Chalons, and numerous other foreign churches that might be mentioned, besides supplying an architect to our own York. There stood the imperfect specimen of the most perfect period of ecclesiastical Gothic—so full of thought that every detail has a meaning—so practical in adaptation that every detail has a use—so true in structure that, were the walls knocked away, it would still stand firm on it piers like a tent; and with all these causes combined, so perfect in national beauty, that Boisserée had christened it, 'the Canon of German architectural law.' And centuries passed away without knowing it to be such. Nay, far from appreciating the tenth wonder of the world that stood among them, men looked upon it with ill-will, as a monstrous mistake, which the barbarity of their forefathers had entailed upon them; an eye-sore to their city, and a drain to their pockets; and to be kept standing only to avoid the greater cost of pulling it down."

The original drawings being discovered, a feeling in favour of the restoration was induced; and, in 1824, the Government resolved to undertake the repairs in the fullest extent.

"This included every portion of the exterior, from the grandest rockwork masses of strength to the minutest lacework tracery of ornament; and a host of workmen, chiefly gathered from the city itself, were soon organised in regular squadrons and actively engaged. The roof and walls, in themselves a gigantic undertaking, were first thoroughly secured. The magnificent buttresses, which, with their flying wings, and forest of bristling piers and pinnacles, were by far the most expensive and intricate section of the work, were fourteen of them in part rebuilt, and all repaired. The stone shafts and tracery of the enormous choir windows, fifty-four feet high, which, instead of protecting, had begun to demolish the gorgeous coloured glass in them, were entirely renewed, and the glass itself, broken, maimed, and obscured with the coatings of centuries, was taken out, cleaned and mended. When the exterior had thus renewed its youth, the interior was cared for in turn. Here every damaged or failing feature, in stone, marble, or metal, passed under the healing hand of the careful workman. The walls were cleansed from every stain—new and old stone united under the same tempered colour—the gold stars in the roof twinkled again from their places—the beautiful leafy capitals lay with their golden foliage upon a scarlet ground—the figures of the apostles upon the piers, with their gorgeous brackets and canopies, revelled in the brightest hues the palette could supply; and then the coloured glass was replaced, and the light which streamed in upon the restored decencies of the holy place was richer and more glowing than it had been for ages."

"At this juncture the King of Prussia died—his present majesty ascended the throne; all favours and all grievances hastened to unfold themselves in the first sunshine of his popularity; a cry of '*Jetzt oder nie*,'—now or never—was echoed from journal to journal along the Rhine; the citizens of Cologne met together—made glowing speeches, and quoted Göethe, Schlegel, Boisserée, Walraff, and every other writer who had even alluded to the cathedral—the first outline of a *Dombau Verein*, or Cathedral-building Society, was formed; and, finally, a requisition, signed by two hundred of the most respectable citizens, reporting their wants and wishes, and imploring royal help and sanction, reached Berlin in Sep-

tember, 1840, a few days before the coronation."

The king was interested, committees were formed, and money flowed in. "In the midst of all this overflowing enthusiasm, a task requiring consummate tact and dexterity, as well as professional skill, had fallen to the share of the chief architect. His first care was to obtain the reversion of the late king's order, touching the continuation of the edifice upon a cheaper scale — chiefly at the sacrifice of the grand external buttresses. This, with the faithful help of Sulpice Boisserée, he proved to be objectionable on technical as well as on æsthetic grounds, adducing the Cathedral of Utrecht as an example; where, a similar plan of economy having been pursued, a great storm in the seventeenth century overthrew the body of the church, while the choir, supported like the Cologne one, remained uninjured. Upon such arguments, and with the feeling that all half-measures were unworthy of the cause, the board directed the words, 'that the building of the cathedral be continued according to the original intention,' to be inserted into the first article of their statutes, and obtained the royal sanction to that effect."

Many difficulties arose, and the progress was slow, but gradually much was done.

"We wish we could say any thing in favour of the fourteen statues upon the outer sides of the choir piers; the recent painting of which, though equally supported by ancient example, we cannot help feeling to be a thing that no precedent can defend. Setting aside the generally affected and unimposing character of the statues themselves, we safely appeal to the reader, what must be the effect of a stone figure, six feet and a half high, painted with black hair and beard, red cheeks and lips, and drapery in every gaudy variety of red, blue, green, and gold, the pattern carefully picked out. The province of true art is not to deceive the senses, but to please or exalt the imagination,—in a sacred building certainly the latter. The province of such art as this is to give the idea of a Chinese mandarin, and the association of a Vauxhall. Even the defence made on the score of carrying out the brilliant hues of the windows is untenable, for the effect is utterly to overpower them. One of the chief charms of painted windows is the contrast they oppose to the broad masses, the sombre lights and shades, and the dim *reflected* colouring, of the architecture surrounding them; and which is of course sacrificed the moment you cover the architecture itself with a glare of colours. The statue, in this instance, does not even keep its real size; for the vulgar brightness of the paint has brought it unduly close to the eye. We especially grudge the disfiguration of the canopies and brackets, as they are far superior as works of art. The brackets, like the capitals of the piers, are composed of foliage and fruit —the hop, the fig, the vine, &c., in exquisite form and relief; the canopies of the richest architectural delicacy, with angels upon them, playing on different musical instruments, in allusion to their position in the choir; the whole, comprising canopy, figure, and bracket, above sixteen feet high, and twelve feet from the ground. The same objections do not apply to the capitals supporting the roof. Only two colours, scarlet and gold, have been used here, and those are appropriately sobered by their distance from the eye. Traces of gilding and colour in a damask pattern were also found, reaching about twelve feet up the choir piers, one of which has been renewed in the same style by way of experiment, but pronounced unsuccessful. We sincerely hope no further essay of the kind will be made, as every stroke of a gaudy brush within the cathedral walls will only lessen the solemnity of its grand space and sublime masses, and especially mar the effect both of the fresco designs and of the coloured windows.

If we consider the immense substructure of tedious preparation required at the outset of an undertaking comprising, like this, the one general effort of a fresh foundation, and the thousand minutiæ of a precise *joining on*; the progress made in the course of four years is a satisfactory proof of the saving of time due to modern machinery, and of the efficiency of those to whom the works are intrusted. Nevertheless, to the many impatient observers who looked up daily and wondered what had become of their thalers, we can imagine that the business appeared to make but very slow way. It was therefore a satisfaction to all parties when, in May, 1845, Swirner availed himself of a society anniversary, to throw open the now perfect south aisles, from which the public had been banished for above two years. They resumed possession with great enthusiasm. A further ebullition of popular feeling took place on occasion of our Queen's visit to the Rhine, when her Majesty assisted to place a beautiful bracket in the centre arch of the north front, and left a donation of 500*l*. About the same time, the Emperor of Austria and the King of Belgium also forwarded very handsome contributions.

Since then, the progress of the building has told more. The beautiful and elaborate decorations, which had been slowly executing in the workshops, are now rapidly taking their places on the building. The fronts of both north and south transepts, with their richly perforated gables and exquisite triple arches, stand sparkling in the first brightness of newly hewn stone. The internal piers have reached their full height, and preparations for vaulting them over are begun. The failing compartments of the northern aisles are perfected, and the north tower is the centre of activity. Such is the amount of hewn stone already in hand, from the massive uniform rounds of the piers to the most intricate details of Gothic sculpture, no two of which are alike, that the *Dombaumeister* looks forward with confidence to throwing open the whole body of the building—aisles and transepts complete, and nave finished up to above the level of the clerestory windows, with a temporary roof over—by the 14th of August, 1848, when a grand celebration of the cathedral's six hundreth birthday is to take place. The final completion to the tip of the spires, with full complement of external buttresses, was not originally anticipated within less than twenty-five years; and at the pace of progress now going on, which will not abate unless the funds do, this is still expected to be fulfilled."

The sum required for the whole work is estimated at a million sterling.

THE FINE ARTS AND RELIGION.

The Rev. J. Close delivered a lecture last week at Cheltenham, to shew that literature and the fine arts were "legitimate pursuits of a religious man." (Who doubts it?) The rev. gentleman said he would plead that genius which is the parent of all those pursuits of which he spoke. Genius the parent of poetry, painting, and sculpture, is a faculty imparted from God to man; and that God never imparts a gift to man which has not a right and good intention.

There is a sheet of white paper. A person takes his pen and writes down one page and up another, and he puts this paper into the hands of his fellow man, and as he reads his tears begin to flow. He reads again—he smiles and then he weeps. What a magic power is this, and what is it that enables a man to do so; to call from the bosoms of his fellows such varied emotions as these? He trowed that there were some who would have covered that paper till Doomsday, and not have produced such results, simply because they have not genius. And look again to another sheet of white paper. Another takes a brush and daubs the whole of this paper with colours; and when, in the course of an hour or so, he shews you this paper, you burst with admiration—it is a beautiful picture. Give that brush and paper to another man, and he will daub that paper till Doomsday, and only prove that he is destitute of that genius which God has given to his fellow. And they might say the same of the sculptor. He takes a mass of stone out of the quarry. He works away; and, in the course of time, changes the mis-shapen block into a form of finished perfection that every body gazes at with delight. Here, again, is genius. And so it is with that mechanical power that produces so many musical instruments. A man runs his fingers over the keys, and entrances people with the sweetest melodies. Give the instrument to another, and what discordant sounds will he not produce? One has the genius of music, and the other has not. And his (the Rev. Lecturer's) argument was this, that God, who gives genius to the poet, painter, and sculptor, gives it for the gratification of all, and he would show before he had done, even for the glory of God.

A WELL-INTENTIONED WORD TO RISING ARTISTS.

The exhibition of paintings at Liverpool is exceedingly good this year; and, moreover, does not include any borrowed pictures, as has been the case heretofore. The present president, Mr. Ansdell, whose large picture in the Royal Academy last season obtained well-deserved applause, has bought himself a house near London. We know of three or four artists who contemplate a similar purchase at this moment; and we mention the fact with a satisfaction that needs no explanation to those who will think upon the matter. We shall not be considered impertinent if we recommend every young artist, who has accumulated a small sum of money, to do the same thing. A man can scarcely find a better mode of investing his money than building or purchasing, under good advice, a house to live in. In this case there is no fear of a bad tenant; the return is safe and large, and stability is gained by the step.

THE MANUFACTURE OF COAL GAS.

Mr. Thomas Hedley delivered a lecture on this subject at the Mechanics' Institution, Devonport, wherein he treated at some length of the early introduction and origin of coal gas, and the merits of its first and earliest propounder, Mr. Wm. Murdock. In 1792 Mr. Murdock began his experiments, and before 1802 he had ascertained the economical value of gas. After this time, and by the year 1804, he had introduced gas into many extensive manufactories in England. In 1815 the first gasholder was erected in London. By some oversight, or neglect, it was suffered to get into a dangerous state, and an explosion took place, and the works being in a populous district great sensation arose, and Government directed an investigation to be made. The result of the inquiry was favourable to the introduction of gas, and immediately after this it began to make rapid strides in the metropolis, and by four years after it was introduced into the larger provincial towns.

The first and most important part of the gas machinery is the retort house. In this house is set a number of cast-iron vessels, heated to redness by means of furnaces underneath. Into these retorts is put the coal intended to be carbonized—the lid screwed on and hermetically sealed by means of a lute, and gas is immediately produced. These retorts are of various shapes, mostly in size from fifteen inches wide, twelve inches high, and seven to eight feet long. As the gas is made, it ascends up the rising pipes, from thence into the hydraulic main, and its return to the retort is prevented.

When gas is first eliminated, it is in a highly impure state, carrying along with it the vapour of tar, ammonia, sulphuretted hydrogen, carbonic acid, and other objectionable properties. The hydraulic main acts as the first collector of these impurities; for, by the cooling influence it yields to the red hot gas in passing through the liquid contained therein, all vaporous impurities are thrown down, and run off to a receptacle called the tar and ammoniacal cistern, placed to receive them. The gas in this state then goes to befurther cooled, which is done by means of what is called the condenser, consisting of a series of cast-iron pipes rising from chambers, in which are division plates; so that the gas is made to pass up one pipe and down another, until it has made its way through the whole series, a distance, depending on the magnitude of the works, of from 500 to 1,500, or 2,000 feet. In the chambers is deposited all the condensible vapours that escape from the hydraulic main, the condenser being so placed as to be exposed to the greatest cold; and the condensed matter is run off into a receiver placed for that purpose. The next vessel is the first of purification. This is called the washer. This vessel is filled to a certain height with common water. By means of the plate, gas is made to pass through this water, and the use of this vessel is to take from the gas the ammonia contained in it.

The next series of vessels are the purifiers, consisting of cylindrical vessels, generally three in number, and placed one above another, for the purpose of running off the contents of the upper one into the second, and the contents of the second into the lowest one. These vessels are charged with an hydrate of lime, or lime and

water in solution, first mixed in a vessel placed above the highest purifier, from which, as soon as the valve is opened, it runs, and fills up to a given height. To prevent the lime so mixed from subsiding, which it would do, there is generally a steam-engine, or other motive power, applied to keep the lime in agitation, by means of arms under a plate, and which have received the name of agitators. The lime in these vessels is used, and is well calculated for depriving, chemically, the gas of the sulphur it has imbibed from the coal, most coal possessing it to a greater or lesser extent. When gas was first introduced, the mode of purification was not known; consequently, the gas was very offensive, and useable only in open and exposed places. Latterly, however, the purification has been so much improved and attended to, that gas can, with great advantage, be introduced, and is introduced, into drawing-rooms, and even bed-rooms.

*** Much has yet to be done in the way of purification. Some of the companies, falling into habits of routine, are less careful in this respect than they should be. The metropolitan gas companies, as we have before said, need reformation.

RAILWAY JOTTINGS.

It is computed that by railway travelling, compared with the same amount of stage-coach travelling, a saving of 7,000,000*l.* to the country would have been realized in course of last year alone; but, of course, the facilities and inducements to travel, thus afforded, must have led to an actually increased expenditure, of far more than that sum, beyond what would have been exhausted by mere stage-coaching.——Major General Pasley is said to have ceased to act as the Government Inspector General. Captain Coddinton, the Deputy Inspector, is named as his probable successor.——A large, and it is said an elegant station, is to be erected at London Bridge, by the Brighton, South Coast, and South-Eastern Companies, in place of the present limited accommodation.——Application is to be made to Parliament, next session, for power to carry out the Regent Canal Railway scheme; but the waterway is to be left not only uninjured, but, it is expected, much improved. The estimate of cost by Mr. Rendell, the engineer, is 685,000*l.*, to be raised by mortgage on the canal and tolls, and by additional shares of 25*l.* each, relatively dispensed amongst the present proprietors, of whom sixty-three, representing 5,500 shares and upwards, have already acquiesced.——The London Commissioners of Sewers have granted permission to lift the pavement for laying the tubes of the electric telegraph, which is now intended to be centered exclusively in Lloyd's.——The Stowmarket station was founded on Thursday week by Mr. Revett, builder, of Stowmarket, who has obtained the contract for the erection, which is to be in the Elizabethan style, with a platform 230 feet long, and a frontage 130 feet long, facing the river. A new street is to be opened in connection with it, with a bridge over the river. Other improvements are constantly taking place at Stowmarket, which is putting on an entirely modern aspect.——The railway bridge to be erected at Yarmouth harbour is to be made of iron, on the principle of Stephenson's new Menai bridge. It will be 50 feet in width, and will be perfectly level, without any arches, although there will be seven feet allowed between it and the river. The present limited, as well as damp and unhealthy station at Nottingham, is to be rebuilt on a larger scale in the spring of next year.——Mr. S. M. Peto, contractor for the Norfolk and Cambridge line, the Southampton and Dorchester, and others in Suffolk and Cambridgeshire, is said to employ six missionaries on his works for the provision of moral and religious instruction to his men. "These missionaries visit the men from day to day. They spend the dinner hour in reading and talking to them. They distribute thousands of tracts, testaments, and other books amongst them. They teach such as are willing to read and write. They endeavour to get them to some place of worship, and preach to them; and do what they can to do them good." If such laudable zeal be tempered with discretion, much good may be done.——The contracts on the Chester and Holyhead line are in rapid progress. About 14,000 men are engaged between Chester and Conway, where 40 miles will be opened in six months, while the whole 84 miles are expected to be finished in eighteen months.——The sea, during a late gale, has done additional damage to the South Devon line, at the scene of the previous disaster, where a bare dry wall, if we recollect right, had been supposed to be sufficient to withstand the inroads of the sea, or to be sufficiently beyond reach of the lash of its waves. The former damage had been scarcely set to rights, when this new inroad was effected. The waters of the Exe estuary are said to be driven with great force, during such gales, against the wall of the railway, along the whole distance where it skirts the shore, and carried in large quantities over it, washing away the ballast from the inside, and flooding the streets of Starcross, and places adjacent. In many parts the timbers, it is added, have been left without support, while in others the whole of the concern, timbers, rails, and atmospheric pipes, have sunk into the abyss which the intruding waters had made, and put a complete stop to any further traffic, the resumption of which will be seriously delayed by the great extent and nature of the damage.——The people of Exeter are said to be involved in new railway projects to the amount of 8,000,000*l.*——The London and North-Western directors examined the tenders for making an extension of the line at Birmingham, from the present station to the centre of the town, where it is to be connected with the intended Birmingham, Wolverhampton, and Stour Valley line. There were eight tenders for the execution of the work; and that of Messrs. Brampton and Gwyther, of Birmingham, for 56,879*l.*, was accepted. The same directors have purchased 13 acres of land, at Rugby, on which to erect a new station. Fifty trains run into the present inadequate station every day.——A verdict of 300*l.* has been issued against the London and North Western Company in favour of Mr. Haywood, for injuries sustained by his wife. The Company, it is said, however, were not unwilling to compensate; only, the amount was not named by Mr. Haywood.——The contract for building the bridge over the Tweed, on the Newcastle and Berwick line, has just been let to Messrs. M'Kay and Blackstock, the contractors for a portion of the line near Belford, for 180,000*l.* The height of the bridge is to be 120 feet; and it is to consist of 27 arches, "of light and elegant structure."——A cotemporary gives the following account of the comparative extent of railway stations in France and England:—"The largest in France, the Orleans, at Paris, covers a space of 249,021 square metres. St. Lazare, at Paris, for the St. Germains, Rouen, and Versailles, covers a space of 34,700 square metres; great additions are being made. The great central station at Malines covers 130,000 square metres. The largest in England is the Bricklayers' Arms, on the London and Dover line; it covers 68,700 square metres. This station is regarded as one of the best arranged of those yet constructed. For merchandise, the most important is the Batignolles, belonging to the Rouen Company. It covers a space of 142,730 square metres. In England that of Camden-town, on the London and Birmingham line, can alone be compared to that of the Batignolles. The smallest station is that of Birmingham, which only takes up 13,500 square metres."——The sum of 80,000*l.* has been placed at the disposal of an English engineer by the King of Sardinia, for the erection of works for the construction of locomotives and steam-engines at Genoa.——M. Borsig, of Potsdam, has been engaged to construct no less than 186 locomotives in three years. Upwards of 100 have been already launched from his establishment within the last fourteen years. The proprietor has just increased the number of his workmen to 2,000.——The long-talked-of project of forming a railway from Petersburgh to Ballishport, on the Baltic, is about to be carried into execution.——A railway along the Adriatic coast is in contemplation, for the facilitation of the Indian mail through the Italian and German states.

Competition.—A premium of 15*l.* has been offered for plans, specifications, and estimates, for the erection of Framingham's Hospital, at Kings Lynn.

THE STATUE ITSELF.

Sir,—As the civil war between good taste and bad is now raging, may I be permitted to offer a few observations upon the statue of the Duke of Wellington upon the arch.

Its greatest fault is unquestionably the height of the man from the seat upwards. The Duke of Wellington never sat so high upon Copenhagen that his chin should be 12 inches above the head of his horse when erect, but so it appears. He looks either mounted on an extra saddle, or his body is too long, which latter objection I think would be found correct, if he could be dismounted and his proportions tested by the great original.

In a work of this kind, close adherence to nature should be observed; for I do not conceive that the sculptor can claim the same privilege too often caught at by our modern painters, that of sacrificing nature to effect. After ages ought to have a truthful representation of the man whose name and deeds of arms posterity will admire and wonder at.

As to the propriety of placing a statue in modern costume upon a Roman arch, we must leave this to the good sense and classic taste of those having to decide. It is undoubtedly the very worst judgment that can uphold it in its present position, to say nothing of the egregious taste of placing the statue of a man before his own door.

If it is to come down as stated, what is to become of it? Either of the parks must be its resting place, and if I may be allowed a suggestion upon this point, I would propose that the hollow at the foot of Constitution Hill be filled up within the park railing, portions of the trees removed, and a handsome opening crescent formed, level with the present road, and made to extend some way into the park, paved and surrounded with balustrading, or appropriate iron railing, the paving to be surmounted by a flight of steps and a modern pedestal of good dimensions, with its sides filled in with bas-reliefs of the principal battles of the duke.

Your now constant reader,
Secundum Artem.

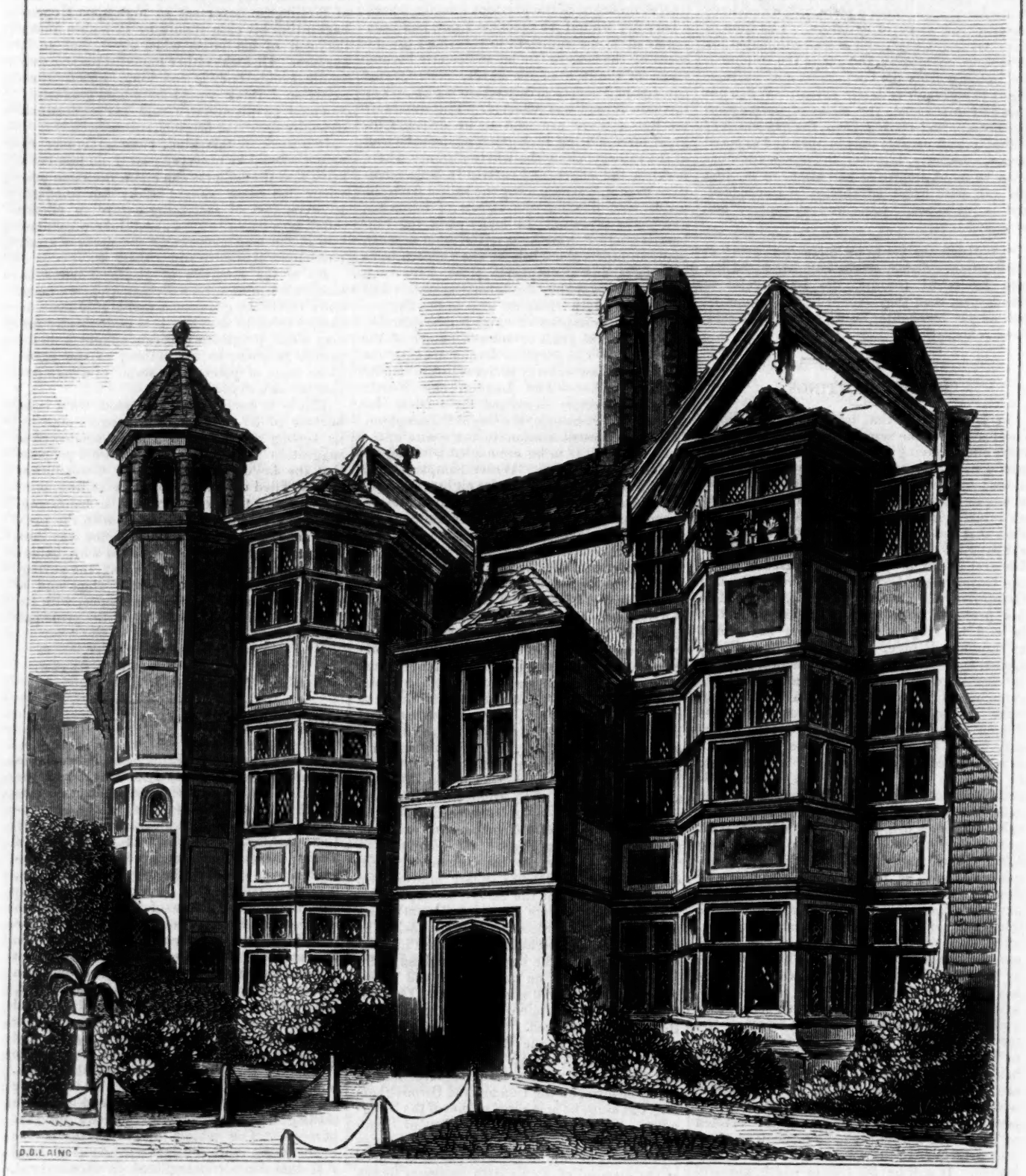
Lambeth, Nov. 16, 1846.

HEALTH OF TOWNS—GOVERNMENT MEASURES.

At an interview on Friday last, between the Home Secretary (Sir George Grey), and the Chief Commissioner of Woods and Forests (Lord Morpeth), on the part of the Government, and a numerous deputation headed by Lord Ashley, on the part of the Health of Towns' Association, and accompanied by delegates from some of the provincial branches, it was elicited, that the Government are "fully alive to the importance of the subject, which has received their serious attention for some time," and that they have general measures in preparation "to be brought into Parliament early in the ensuing session." The omission of the metropolis, and Scotland and Ireland, from the general measure proposed by Lord Lincoln, was purposely made, "the different cases requiring different machinery," and properly forming the subject of separate Acts. Sir G. Grey recommended those contemplating application for local Acts to comply with the forms, but not to expend a single shilling beyond what was requisite for that purpose. The subject of graveyards is also to be dealt with by separate Act.—A local Act had been contemplated in Sunderland, and this was the advice given by Sir G. Grey to a deputation on the subject. We may here remark, that the Hull Town Council have just taken the initiative for the procurement of a local Act. On the contrary, at Ormskirk, it has been resolved to await the Government measures.

New Mosque in Cairo.—Mehemet Ali has constructed a new mosque near the citadel, which *The Times* says is the most splendid in the world. He has been engaged upon it twenty years, but avoids finishing it because a popular prophet has said that his life will end with the last stone being laid. The mosque is built of Egyptian marble, and it is really wonderful to behold, considering that it has been arranged by native architects and workmen, without any fixed plan, almost without measurement, and as it were only in imitation of other buildings of the same style.

EASTGATE HOUSE, ROCHESTER.



EASTGATE HOUSE, ROCHESTER, KENT.

Eastgate House is one of the most picturesque objects in the town of Rochester. It is situated in the high street, and overlooks the Dock-yard and Town of Chatham. The date of its erection is the latter end of the 16th century. It was built by Peter Buck, of Rochester, gentleman, clerk to the "Queenes Maiesties Navye." His arms with those of his two wives are in the decorated ceilings in the interior. The house, which is of timber frame-work, has undergone considerable alteration in its exterior. The upper part of the porch is much altered. The front had originally another prospect tower on the right corresponding with the one seen on the left. This latter tower is restored in the view to its ancient appearance. The small columns seen in the upper story remain, although externally they are covered with plaster.

The interior is nearly in its original state. There is one extremely handsome fire-place, and some richly decorated plaster ceilings. The house is now occupied as a ladies' school.

C. J. R.

ALTERATION IN COVENT GARDEN THEATRE.

It is proposed wholly to take down the audience part of the theatre, from the ceiling to the top of the walls under the pit, and including the walls under the galleries and boxes throughout their whole height, and to rebuild the latter so as to increase the size of the pit and the area between the fronts of the boxes, and from the fronts of the galleries to the proscenium. Two new stone staircases will be formed from the level of the corridor behind the ground or pit tier of boxes, to the height of the highest boxes. The floor of the pit-tier corridor will be made wholly fire-proof, and communicating with the pit itself, as well as with the pit-tier boxes on one side, and with the ground level saloon by means of a double flight of stone stairs. The grand staircase from Bow-street, and the royal and other private-box staircases on the other side of the house will remain, these being capable of assisting in the relief of the audience part of the house at all times.

Mr. Benedict Albano has the direction of the alterations.

ROMANESQUE DOOR IN THE CHURCH OF ST. URSULA, COLOGNE.

The church of St. Ursula, at Cologne, is said to have been completed as early as the year 922, by Clinatus; but great alterations and additions have been made there since then. It is celebrated, as many of our readers doubtless remember, for containing the bones of the ten thousand virgins slaughtered, with St. Ursula, for virtue's sake!

It is said that an anatomist of the town once offered to demonstrate that the bones were those of *dogs*, and was compelled to fly to escape the wrath of the populace in consequence. With this, however, we have nothing to do.

Amongst the interesting matters this early structure does really contain, is a romanesque door, of which the above engraving is a representation.

At present, a lining of wood surrounds it, thereby covering portions of the ironwork; but this has been left out of the drawing, to shew the design complete.

There is also in this church some very fine romanesque stained-glass windows at the east end.

"Santa Maria in Capitolis," another of the many fine romanesque churches of Cologne, has, in the north doorway, a pair of splendid doors, carved with scriptural subjects, and said to have been executed as far back as the 12th century; also a pair of fine wrought-iron renaissance gates to a chapel, a brass font, and some very good stall ends.

ANCIENT AND MODERN SEPULTURE.

Mr. J. R. Hamilton, one of the architects of Cirencester Agricultural College, and who, as our readers may remember, was the successful candidate in the Birmingham Cemetery competition, has recently delivered a lecture on interment before the Gloucester Literary Association. The first portion of Mr. Hamilton's lecture gave a brief abstract of the various ancient modes of disposing of the dead, amongst both the rude and polished nations of the world. Of Rome he said:—

"The most costly tombs were henceforth placed along the roads at the several entrances of the city, in imitation of Greece and Egypt. Illustrious personages gave their names to the several localities in which they were entombed, and thus came the titles of Via Amelia, Via Lucilia, Via Julia, Via Appia, and the numerous roads which are yet seen branching like veins from the heart of the Eternal City, covered by the very flagstones which once echoed the tramp of her mighty legions, as she sent them forth to conquer the world; and though now solitary and fallen, glorious in association, and in noble keeping with the majestic solitude of her vast Campagna. The Appian way, in particular, was crowded with columns, obelisks, and cenotaphs; and on every side were to be seen the short but touching epitaphs 'Siste, Viator,' pause traveller; and 'Sit tibi terra levis,' may the earth lie lightly on thee. Up to this period none but the vestal virgins were permitted to be buried within the city; but after a time generals, who had received the honours of triumph, possessed the same right, and afterwards the priests. A distinction so flattering to vanity and self-love caused it to be eagerly sought after; and owing to the frequent revolutions which the city experienced, the subtlety of some, and the laxity of others, the abuse increased until distinction became lost in universality, and the evil became so general, that the Emperor Adrian was compelled to prohibit anew interment in cities, and Antoninus Pius afterwards included in his ediet the smaller towns and suburbs of his enormous empire."

When the persecution had filled the catacombs with the bodies of the early Christians, he said,—"rich and influential patricians and Roman ladies, who had embraced the new faith, came boldly forward, and gave large tracts of lands for the exclusive purposes of burial, and hence the origin of *Cemeteries*, of which, I believe, no fewer than 40 are to be counted in the environs of Rome alone."

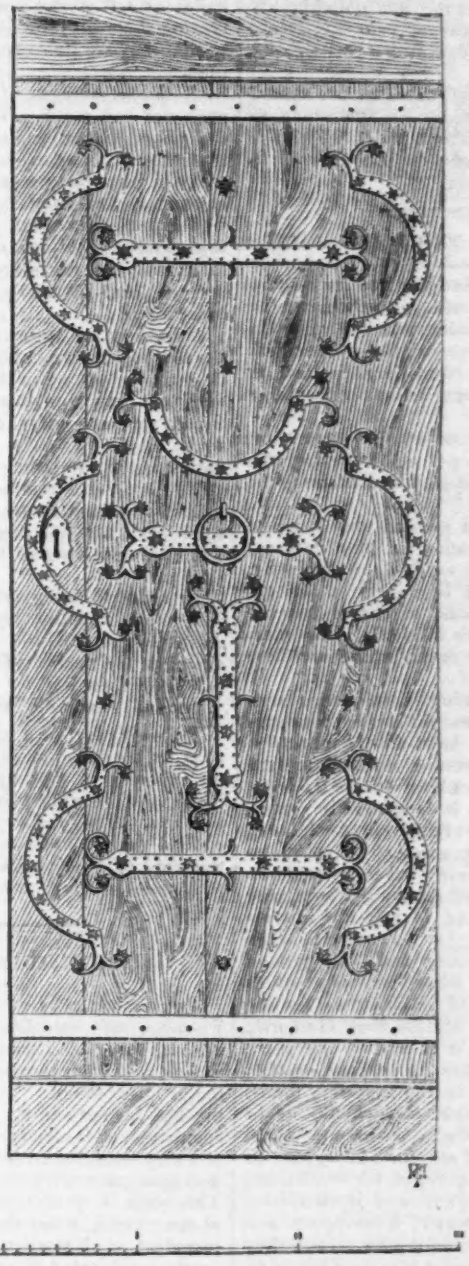
The main purpose of the lecture was to shew the advantage of extra-mural cemeteries, and the evils which result from burials in towns.

"Glasgow," said the lecturer, "boasts of its Necropolis. Dublin and Cork have also cemeteries, which are described as most beautiful and extensive. Nobody, I am sure, can visit many of those established in England of late years, such as Norwood, Abney Park, Kensall Green, Liverpool, &c., without coming away impressed with the conviction, that it is far more agreeable to our feelings to have the dear remains of those we love consigned to these retired, protected, and charming sanctuaries, than to the repulsive and uncertain keeping of a city graveyard, or to be left consuming in

'low-brow'd misty vaults,
Furred round with mouldy damps and ropy slime.'

Nor are the institutions I have mentioned the only ones worthy of notice in our own country. The danger which recent investigations have proved to arise from interments in towns has caused the establishment of many others in the united kingdom. There are two others at Glasgow, besides the Necropolis. In England, we have them at Bath, Birmingham, Bristol, Cambridge, Gravesend, Kidderminster, Leeds, Liverpool, London, Manchester, Newcastle-upon-Tyne, Norwich, Nottingham, Portsmouth, Sheffield, Winchester, Wisbeach, York, &c. But, after all, these form but an insignificant portion of the mortality of Great Britain; and, considering the immense advantages that are seen to result from these institutions, wherever they have been established—the facility of so forming them as not to interfere with existing interests—the encouragement which Government has promised to give to, if it does not proceed even to *compelling*, their formation—and the emolument that must be reaped by those who embark money in these institutions, especially if Government insists upon extra-mural interment—it is really a matter of astonishment that so many large and populous towns throughout the country should have so long submitted, and be still submitting, to the intolerable nuisance of burying dead bodies among their inhabitants. Look, for instance, at a city of such importance as ours—with a powerful established commerce—already, and becoming yearly more so, the focus of a whole system of railways—which, if free trade is to bring all the good it promises, will be one of the first to reap the advantage;—where we see corn warehouses springing up, and occupied as speedily as they rise;—where it is contemplated to expend 16,000*l.* for the enlargement of our already flourishing port;—surely such a city should at least be in a position to keep pace with its neighbours in the race of public improvement. We can boast of an infirmary which, in point of extent and usefulness, and the talent of its officers, I have frequently

DOOR AT ST. URSULA'S CHURCH, COLOGNE.



heard mentioned in London as on a footing with the metropolitan ones. If it be imperative upon us to maintain this noble institution for the cure of diseases, why should we not exert ourselves to remove one of the most fruitful sources of those diseases? If we feel it necessary to preserve the fine old churches of our city from the jaws of ruin and decay, why should our churchyards lie rotting and neglected!"

If Mr. Hamilton's well-timed lecture should have the effect of leading his townsmen to establish a public cemetery, which we hear is likely, the least they can do in return is to appoint him the architect.*

IMPROVEMENT OF THE METROPOLIS.

Sir,—I am glad to find that you have again referred to the subject of a *general scheme* for the improvement of London, and hope you will not lose sight of it—for while the so-called, but doubtful, improvements are carried on piecemeal, as at present, we can never hope for a good result.

Will you allow me to offer a few remarks on the subject, in the hopes of awakening the Londoners from their apathy, and attaining the desired end?

In order to obtain a general and complete scheme for the renovation of this immense city, and that it may be carried out effectually, the management must be entirely under *one* directing body, who must of course have the necessary funds at their disposal. The question naturally suggests itself, where are these funds to come from?

Now, the corporation have very large revenues at their disposal for this express purpose; and, as I would have all the improvement committees and commissions amalgamated into one, their funds would of course be available. But, I believe, it is generally found, that the increased value of the frontage obtained by laying out efficiently a new street, pays the expenses, so that in many cases it would be only necessary to raise money on loan, and have sufficient in hand to pay the interest—and the loans might be repaid when the street was finished, and the ground sold. But there are other improvements in which the money would be sunk; as, for instance, the removal of Middle-row, Holborn; and for such purposes it would be necessary either to levy a rate for the purpose, or that Government should vote the necessary funds. When obtained, the first step should be to make a complete plan of what is now considered "London," extending, say from Islington, on the north, to Kennington, on the south; and from Limehouse, Poplar, and Rotherhithe, on the East, to Bayswater, Kensington, and Brompton, on the west, as it now is, and then to lay down a well-digested plan as it ought to be. I must not omit to mention, that the plans should also give the levels and sections. All the numerous schemes at present afloat might thus be harmonized into one general scheme, and carried out as such.

One great feature in the case should be the bringing of all the railways nearer to the heart of the "City," which would relieve the streets of a great number of waggons and omnibuses, &c. &c.

Another should be the abolition of the tolls on all the bridges, and the Thames tunnel, and the forming of approaches for vehicles to the latter. By these means the traffic would be more equally divided amongst the bridges.

I would also wish to have included in this great undertaking, the removal of Smithfield market and the numerous slaughter-houses with which it is surrounded, to the great detriment of our health. As there is a market ready to hand at Islington, there need be no difficulty as to where to remove it to; and the present site, if let for building, would realize an immense rental. It is true some temporary inconvenience would ensue, but it would be nothing in comparison with the benefits obtained by such a course.

Not only should the plan embrace the formation of new streets, but also the removal of the numerous excrescences in the *old* streets and alleys, in the shapes of middle rows, and buildings projecting beyond the general line of frontage, &c. &c. These are also more particularly noticeable *in front of* and round about the "city" churches, where you see engine and watch-houses, vestry-rooms, and private shops and houses, disfiguring the fine old buildings left us by our ancestors, and connecting them with rows of combustible houses, so that they are liable to be burnt down at any time.

Of the advantages of a *general* scheme, I need not say much. The manner in which the railways have been carried out, sufficiently shew what we may expect from our funds being spent in a headlong manner, without any preconcerted and well-digested plan. There would be also a great saving of expense by this course, as only *one* application to Parliament would be necessary; and there would be but one staff of surveyors, &c., required to carry it out.

At present the Improvement Committee of the Corporation are obliged to stop short in their operations, when they come to the boundary of that now *small portion* of London which was originally contained within the walls of the "City." This is strongly apparent in the formation of New Farringdon-street, or Victoria-street, as I believe it is called, where, after the corporation had done their part, the line stopped for some years, and even now it seems to be progressing very slowly.

In order to bring about this desirable project, public attention must be brought to bear on the subject, and the Londoners, fully convinced of the necessity for *action in union*.

I am, Sir, &c., A Londoner.

London, Nov. 18th, 1846.

P.S.—With regard to the proposition to lay a tax on the inhabitants of London, to defray the expenses of the improvements, I think it is the most feasible plan; and then the corporation funds (*for improvements*) might be applied (as proposed to-day at the meeting of the ward of Farringdon Without) to the improvement of the "sanatory condition of the people."*

FURNITURE WOODS.

The timber sales of Messrs. Chaloner and Fleming, says the *Liverpool Mail*, have long been a source of attraction in our mercantile circles, from their magnitude, and the variety of the articles offered. Their announcement for the 30th instant and the 1st December, it adds, comprises a vast variety of woods, some of them of a very beautiful description. In the article of mahogany, their circular is diffuse in its eulogy. This trade, it is said, has, in the short space of four years, since the removal, by the Government, of all restrictions on its importation, nearly quadrupled itself. Until lately it was regarded as a rare and costly wood, applicable only to articles of luxury, few trades besides that of the cabinet-maker having had any knowledge or experience of its qualities and advantages. Now, owing to its low price and better appreciation, "it enters largely into the construction of almost every article in which wood is required; and is one of the cheapest and best materials which can be employed for the following important purposes, viz., house building, church building — pews, benches, screens, pulpits, and even roofing and flooring; ship building — for the entire frame and planking; dock and canal gates; cabinet work; carving and coach-building; machinery, and railway and other carriages. Many of our principal gentry have elegant sideboards, and other articles of furniture, magnificently carved from this wood; and it is in great request in the dockyards."

We observe that iron wood, a species of mahogany, or cedar, the produce of America, has been added to the free list; and to the stimulus thus, and in so many other similar instances, given to the business of all sorts of workers in wood, is to be added the admission of the following half dozen other sorts, namely,—Yacca, Arariba, Paroba, Algaroba, Cajoba, and Cobano; which have been also added to the free list as furniture woods.

NEW ARRANGEMENT OF WOOD-PAVEMENT.

Sir,—I feel convinced that wood paving, if firmly and properly constructed, would be superior to stone; and having, as I hope, succeeded in devising a method whereby its utility may be enjoyed, I shall be obliged if you will communicate the following remarks to your readers and the public.

There are two conditions absolutely necessary for the successful adoption of any description of pavement for roads.

1st. A foundation that will resist effectually any weight that is likely to pass over it: and

2ndly. A sure footing for the horses.

Now it is evident, that as the wheels have to support the principal weight of the load, the part which they traverse requires the greatest solidity. And it is further evident, that as it is not desirable that the horses should either slide or roll along, it is quite unnecessary that they should be provided with a smooth and perfectly even surface, like that required for the wheels. I therefore propose—

1. That the wood-paving be laid in parallel lines, of such a width and separation as may suit the differing distances of various wheels, having narrow slips of stone to preserve the edge, with a stone-paved or macadamized road between them. That two lines be laid at each side of the road, the line nearest the middle to be twice the width of the other, to enable two wheels to pass on it. If the road be wide enough, a line of double width in the middle will connect the other side, so that with five lines of wood-paving four vehicles may pass abreast. If the road should only be wide enough for three vehicles, then four lines will be sufficient. If there is room only for two vehicles, then three lines will be enough.

2. That the blocks be parallelopipeds, inclined at any angle which experience may prove to be best for equalizing the resistance of the fibre; one condition, however, being necessary, namely, that the angles of all should exactly correspond; and that the blocks incline over each other longitudinally, each having two pins at right angles with the inclined face, uniting them, by which the effect of the pressure on the top will be to keep them united. It will be seen that in this way the joints are as solid as if the blocks were one continuous log.—That the end of each line, where the block would otherwise overhang, be terminated with half a block.

3. That the foundation supporting the blocks be flat cast-iron rails, jointed at the ends, having a square longitudinal groove in the top to sink the blocks in tightly. That sleepers, as in the construction of railroads, be laid below the joints, and across the road, to connect every two lines together, having steady-pins to keep the rails in their places. That a bed of concrete, composed of blue lias lime and broken granite, be laid beneath the sleepers and rails.

Where extra strength is required, a frame may be constructed of two rails, with cross supports between them cast in one.

From the above it will be seen that a more secure foundation, and a smoother road, may be had at a much cheaper rate (if we consider its durability) than has yet been put in practice; that a better footing may be provided for the horses than any extent of grooving can produce; and that the road may be opened for gas or water-pipes, as readily as an entirely macadamized or stone paved road; and this without at all disturbing the wood.

Hoping that the importance of the subject may induce the citizens of London to give it a fair trial, and thereby shew to the world that there *is* "a good road making,"

I am, Sir, &c., J. R. Larkin.

36, Green-walk, Blackfriars-road.

* To-night (Friday), Mr. J. A. Walker will deliver the first of a series of lectures on the "Condition of the Graveyards in London; their injurious consequences to public health and public morality," at the London Mechanics' Institution, Chancery-lane.

* This was an adjourned meeting, for the purpose of "resuming the consideration of, and protesting against, the recently proposed enormous outlay of the corporation funds, in the formation of a new street, whilst the conservation of the health of the citizens generally, and of our poorer fellow-citizens especially, imperatively demands the adoption of the best means for securing such sanatory regulations as the present painful exigences of the case require." The following additional resolution was passed:—"That this meeting observes with deep concern, that the mortual registers of the last year afford evidence of a great increase of death by epidemic diseases, in the metropolis and other large towns in the kingdom, arising out of the want of those proper sanatory regulations, which it is the bounden duty of the legislature and of the local authorities to adopt, and the immediate adoption of which this meeting would most earnestly press upon the corporation of the City of London, including improved habitations for those of the labouring classes who are compelled to dwell within or contiguous to the City; and that a memorial to this effect be presented to the Court of Common Council, and that the other common councilmen of the ward be respectfully requested to give it their most strenuous support." A memorial of considerable length was read and determined on.—[Ed.]

NOTES IN THE PROVINCES.

"There has been quite a hydro-mania in Liverpool lately," says the *Liverpool Mail*. "The relative schemes of Messrs. Gage, Hawkesley, and Rawlinson, for supplying the town with abundance of water from Bala Lake, Rivington Pike, and our own locality, have been equally canvassed, and a fire has been elicited amongst the advocates which would require a good deal of water to extinguish. The committee of the council have decided in favour of the Rivington Pike plan.——The cap-stone of the spire of West Derby New Church has been fixed in its place.——The new district church of St. Mary Magdalene, Barnstaple, and its adjoining burying-ground were consecrated on the 10th instant.——The new church erected at Failsworth, near Manchester, was to be consecrated on the 26th. ——The full amount of Mr. Owen's bequest for the foundation of a college near Manchester, it is said, will be about 100,000*l.* —— A fund for the establishment of a public park at Oldham, has been opened by a contribution of 60*l.*, raised amongst the workmen employed in one manufactory, namely, that of Messrs. Hibbert and Platt, machine makers. The Government two or three years since offered 1,000*l.* for the purpose so soon as a like sum should be raised by subscription or otherwise. ——St. Julian's Church, Shrewsbury, has been decorated and improved externally under the direction of Mr. Dodson, of that town. —— St. John's church, Stratford, it is said, has been much improved by the cleansing and repair which it has undergone, and especially by a stone altar-screen designed by Mr. G. A. Dean, architect of Stratford. The expense has been met chiefly by subscriptions. ——There is a prospect, says the *Bury Post*, that the bare walls of the sacrarium of St. Mary's Church will now be put into a state more consistent with church decency, and the general character of the edifice, a lady having offered to give 100*l.* for placing the commandment tablets, &c., in the accustomed place. A suitable reredos, when the painted window is put in, will probably be completed by public subscription.——It is intended to erect a building for a museum at Ipswich, 300*l.* and upwards having been subscribed. A correspondent of the *Ipswich Journal*, however, suggests that the museum itself should be purchased in the first place, so that there should be something to put into the building when it is erected.——A slaughter-house is about to be erected by the Norfolk Railway Company at their Trowse station, about a mile from the Norwich cattle-market, for the purpose of slaying the bullocks there, and supplying the London markets with slain meat instead of live cattle. This, says a correspondent, is to obviate the bruising of the beasts while in transit on the rail. Were its adoption general, the *twofold* purpose of alleviating the nuisance of Smithfield market, as well as of obviating the annoyance and cruelty attendant on the driving of the cattle there, would be effectually accomplished.——In the Scott monument, at Edinburgh, there are fifty-six niches yet to be filled with statues of the chief characters in Sir Walter's imaginative works. Up to the present time, the Scott monument has cost 15,650*l.*——Government have resolved on the construction of extensive works at Guernsey, involving an outlay, it is said, of at least 500,000*l.* The plan embraces the construction of breakwaters, to form a naval harbour between Fermain bay and Terres point, with magazines and other requisite buildings, together with barracks, in the vicinity of Fort George, for the accommodation of several thousand men, while defensive works will also be established at the Vale, and at Jethou or Brehon.

Railway Simile, by Lord Morpeth.—Cut your first sod in the dense crust which has too long overlaid the genial capacities of the soil beneath; open the waste land of selfishness, of ignorance, of error, in order that you may call forth the full development of mental progress and of moral culture; and let the free communication of knowledge, and the improving intercourse of thought, ply incessantly along those new highways which, in their advancing progress, are to bring together the wants and the attainments of the united human family.

"PROJECTIONS IN STREETS."

Sir,—The charitable incredulity of your correspondent, "T. L.," is natural enough; but it does so happen that his charity has led him into error. It was my duty to attend, as one of a civic deputation, in their conference with a member of the Government upon the subject. It was especially desired that the control over shop-fronts, within the city at least, on account of its peculiarities, should be left where the legislature had very wisely placed it, under the Commissioners of Sewers (who also manage the pavements). This was not acceded to; but still, although not so intended, they do, in law, retain and exercise their restrictive power, curbing, but not going beyond the Building Act. During the conference, it was certainly not openly avowed, but in reply to a remark (made indeed by myself) it was admitted, that they sought to get the streets widened without compensating the owners. Every objection as to the irregularity which would result from it, and the unfairness of the proceeding, had been urged over and over again, even *ad nauseam*, but the promoters of the Bill did not see as the citizens saw, and so it became law. That it should remain law much longer is little to be desired. Common sense and common honesty are in arms against it.—I am, Sir, your old subscriber,

Brickbat.

*** Another correspondent on the same subject says:—Ground being so valuable in London, especially in the city, a person desirous of building, rather than lose eighteen or twenty inches of that for which he has paid so dearly, would dispense with all external embellishment; and we might bid adieu to street architecture. But I contend, if even this be not the case, there would still be another evil result, namely, that those houses which, from their possessing architectural projections, one would think would be the handsomest and most sightly, and as such would deserve a front situation, would be thrust back, whilst those which had plain fronts, and as such were not worthy of a prominent situation, would be brought forward, to the injury of the former. L. H. I.

ANGLO-NORMAN CHURCH AT MORPETH, DURHAM.

A new church, or chapel of ease, of considerable size, in the parish of St. James the Great, was consecrated at the beginning of the month. It is built in the Norman style, exceedingly massive and substantial, with little ornament. Its length from east to west is about 130 feet; its breadth about 46 feet, and it is capable of seating about 1,000 persons. The roof is open framed, and composed of Memel fir timber stained; the seats are of the same material, and are all open. In the nave are eight stone clustered pillars. The roof of the chancel is supported by interlaced arches; and on its north and south sides are small galleries for children, reached by spiral staircases. There are chancel aisles, with stone screens; and the reredos and the pulpit are also of stone. The chancel and apse are paved with encaustic pavement. Nine stained windows in the apse were from the manufactory of Mr. Wailes, Newcastle, and represent Christ and the principal of his apostles. Five other stained windows have been produced by Mr. Clutterbuck, Stratford, Essex; two in the north transept represent the Crucifixion and the taking down of our Saviour from the cross; two in the west end, the transfiguration and the agony; the fifth, in one of the chancel aisles, represents the beheading of St. James, and Peter in prison. The ground was given jointly by the Earl of Carlisle and the late Mrs. John Fenwick. The foundation-stone was laid on St. James's day, 1844, and the total cost is estimated at about 5,000*l.* The stone employed has been brought from Hartford-bridge, in the county. The architect is Mr. Ferrey; contractor for the stone work, Mr. King, Morpeth; and for the wood work, Mr. Haswell, Morpeth. Clerk of the works, Mr. Burrow.

New Schools, Westminster.—The dean and chapter have liberally granted a piece of land in Little Chapel-street for schools in connection with Christ Church, Broadway.

New Books.

Railways for the Many and not for the Few. By James Ward, Esq. Smith and Elder, Cornhill. 1846. 34 pp.

The main point urged in this pamphlet is, that shares should be lowered in amount; on the ground that "it would keep the market in a healthy state; advance the progress of the system, by bringing to it the aid of capital which is available now to no other process in the production of wealth; promote economy and industry among the humbler classes, by affording a profitable field for the investment of their savings; and diffuse amongst the nation at large the beneficial interest of the grand economical invention of the day, which, as already pointed out, the commonwealth should never have abandoned to the few."

The enormous expense of construction is very properly commented on, as well as the more extraordinary expense of legislation. "It will hardly be believed hereafter, that Mr. Astell and Mr. Hudson have spent more than 750,000*l.* in struggling for the London and York, a length of not more than two or three hundred miles!"

The average cost of railways in England, the writer says, is 35,000*l.*, while in Belgium it has been but 16,000*l.*

The London Art-Union Annual. Sprigg, Great Russell-street. 1846.

The second volume of this work, just now published, contains representations, sketched and engraved by Mr. H. Melville, of 265 works of art, selected by prizeholders in the Art-Union of London, and forms a very interesting record of the annual exhibition. With a little more care it would, in addition to this, which of itself must obtain for it a large number of purchasers, be entitled to a strong recommendation as a book for every drawing-room table.

Correspondence.

FAILURE OF WORKS.

Sir,—Continuing the "following up" by which you have so probingly exposed many of the sources to which the failure of railway works may be attributed, permit an old and practiced engineer to point your attention to another circumstance, which may be "the fruitful parent" of many of the mishaps that we now so frequently hear of. I allude to crowding the profession with young and inexperienced hands, whom the more advanced are glad to take into their draughting rooms for the sake of their premiums, and after a year or two's attendance, with or without application to work, as the case may be, are turned loose upon the world as civil engineers, without examination, perhaps without ability, at all events without any experience.

I submit to you that in every other profession—the church, the law, and medicine, all are obliged to pass severe examinations on their respective studies, before they are allowed to add the respectability of a title or a degree to their names, as an evidence to the world of the opinion of competent persons as to their ability; and I trust you will agree with me that until some plan has been devised, by which civil engineers may give to the public some guarantees that they are not entirely strangers to engineering requirements, the profession will never attain that standing and eminence which it ought to hold, nor the public that safety and security which it has a right to demand in all engineering undertakings.

I am, Sir, &c.,

A Practical Engineer.

Old Slaughter's Coffee-house.

GOVERNMENT WORK ON ARCHITECTURE.

Sir,—Having lately met with the very extraordinary volume mentioned below, and of which I believe scarcely a dozen copies have been distributed, I am desirous of ascertaining its history; for it seems among the mysteries of government, that a volume of such a size, on such a subject, and necessarily involving such a large expenditure, should be printed for the purpose of being shut up in a private office.

That "secret service money" may be secretly and imprudently applied, is not surprising, but

that *public money* should be wantonly and uselessly expended, demands the investigation and scrutiny of a Hume or a Williams.

If any of your readers can give me and the public any account of the origin and history of the work referred to, they will render useful service. The title-page is as follows:—"The Architectural Antiquities of the Collegiate Chapel of St. Stephen, Westminster, the late House of Commons: drawn from actual Survey and Admeasurements made by direction of the Commissioners of Her Majesty's Woods and Works, &c., accompanied by Observations on the original and perfect state of the Building, and a Description of the Plates. By Frederick Mackenzie. London: Weale, 1844." Large folio (size of page, 31 inches by 26), 42 pp., 19 plates.—I am, Sir, &c.

A Lover of Architecture.

ST. JAMES'S CHURCH.

Mr. Builder,—I want to see the exterior of Sir Christopher Wren's church brightened up, to remove its present dingy appearance, which will be much increased by the new rectory now in course of building. The parish might surely improve the appearance of the brickwork, and do good by cleaning the stone stringings and dressings, adding others, and, by surmounting the walls with a stone balustrade, which would add much to its effect, and would also be in keeping with the square tower. Poor old Westminster Bridge might, perhaps, furnish these stone balustrades at a cheap rate. Would not the steeple be much better for a coat or two of paint, seeing that all the other parts of the building have received their good looks from the painter.—I am, Sir, &c.,

London, Nov. 22, 1846. Cob-Web.

IMPROVEMENT OF TAUNTON.

Sir,—As you have occasionally mentioned the attempts that have been made to "*improve the town of Taunton*," I beg to inform you what efforts have been exerted to attain that object, and how they have miserably and unfortunately failed,—for the present, at least. The scheme adopted was comprehensive in the highest degree, and worthy of a better fate.

A *commission* was to be appointed, and empowered by Act of Parliament to carry it out, and rates levied to defray the expenses. Some of the requisite notices had actually been given, in order to apply to Parliament next session, for an "Act" to carry out the plan, when, strange to say, the promoters of the scheme quarrelled, and at a meeting last week, a motion was carried to abandon the proposal altogether.

Such a course seems both absurd and unjustifiable.—I am, Sir, &c.,

A Looker-On.

London, Nov. 23rd, 1846.

"Athletizing" of the Working Classes.—We use this novel expression to point out the difference between mere *exercise*, hitherto recommended to our youth, and the consequential and *systematic* development of the *whole* physical frame, which are two different things, indeed. The truth thereof begins so much to be appreciated on the continent, that the government of Hesse Darmstadt have issued an especial regulation thereon. It states—that henceforth the athletic schools (*Turn-schulen*) already existing at all educational establishments, have to enter into the category of *ordinary training*, and take their rank as one of the legally prescribed branches of youth's tuition. Moreover this, in several places on the Maine, the male youth have united themselves into *athletic societies*, with a detailed set of rules and regulations. Some of them also take a pledge, "to grow themselves up to proud and manly vigour." It may be interesting to observe, that when Dr. Jahn first established these public play and athletic grounds in Prussia, he was indicted for high treason, and put into a fortress!

Supply of Water to London.—An application is to be made to Parliament in the ensuing session, for an Act for better supplying the metropolis with water, from the river Thames, at Taplow, in Buckinghamshire, by means of reservoirs, aqueducts, pipes, &c., to terminate near the Swiss Cottage, at Hampstead.

TENDER.

Tenders delivered on the 13th inst., for erecting three houses at Liverpool; Mr. J. G. Austin, architect. The quantities were furnished:—

Furness and Kilpin	£3,275
Jones	3,194
Witter	2,956
Mackerell	2,912
Leader	2,797

All Liverpool builders. The lowest tender accepted.

Miscellanea.

St. Paul's Church, Denholme Gate.—On Friday the 20th, the Bishop of Ripon consecrated this fabric. The church consists of nave, side aisles, and chancel, and is open internally from end to end, there being no rood screen at the chancel arch, and the base of the spire being filled with a gallery, which also projects one arch into the nave, and is the only gallery in the church. The aisles are separated from the nave by seven arches, on clustered pillars, above which there is a clerestory, with double lights above the apex of each arch, the groining of the roof springing from the spaces between. The seats are all low backed, having poppy heads at the ends nearest the middle aisle. The reading-desk and pulpit are placed at each side of the chancel arch, and the chancel, which is raised from the nave by three steps, is paved in diamonds, black and white. The east window, of stained glass, is a triple lancet, the two side lights containing each two passages, and the centre light three, illustrative of the life of St. Paul, the patron saint. The church was designed by Mr. Chantrell, of Leeds, and contains upwards of 600 seats.

Pedimental Sculpture of St. George's Hall, Liverpool.—Two of the Liverpool artists, Mr. Spence and Mr. Macbride, are vehemently protesting against the refusal of the town-council to "allow them to send in designs or models of sculpture entirely at their own cost;" the council having refused on the ground of its being "too late to think of the matter." Reverting to the procurement of the designs themselves, they then appeal to their "townsmen generally, every professed man of taste, every merchant, trader, shop-keeper, and all,"—against the "entire disregard of competition," as not "the fair way of appropriating the funds of the town." But in this, exclusive of "the encouragement of art," they suppress the fact, that the town-council, in accepting Professor Cockerell's designs, were not "appropriating the funds of the town" at all; but, on the contrary, were saving those very funds which would have been expended in a competition for designs. Irrespective altogether of the general merits of this particular case, this is not exactly as it ought to be, especially where profession is being made of "explaining to the townsmen *the whole matter*, from first to last, *and in a simple way*."

The Destruction of Buildings at Gravesend—again urges into notice the necessity for the adoption of stringent measures for the more effectual protection of buildings against fire. In the present instance, we may observe, the party-walls were in various cases plainly dilapidated. It is a humiliating fact, too, as regards human foresight, and capability of benefiting by dire experience, that the principal portion of the houses that were erected on the site of the former fire in West-street are again consumed. It is some consolation to know, however (if, indeed, it comes to any thing after all), that "a meeting of the corporation was held on Wednesday last, to devise measures for the future protection of the borough against the occurrence of similar calamities." It is time to shut the stable securely now that the steed has been twice stolen out of it. The amount of loss by the late fire is estimated at 100,000*l*. Another has even since occurred at Gravesend, and one at Southampton.

Institute of British Architects.—At an ordinary meeting of the Institute, held on the 16th inst., a paper was read by Mr. C. Newton, of the British Museum, on the art of the marbles from Halicarnassus, and their connection with the celebrated sepulchre of Mausolus. We shall give it in full.

Decoration of the Chambers of the French Peers.—We learn from the *Morning Herald*, that M. Eugène Delacroix has just finished the paintings in the grand library of the Chamber of Peers, and that the scaffolding is removed. The subject of the composition is the introduction of Dante by Virgil to the heroes and sages of Paganism, in the "Divina Commedia." It is not a mural fresco, but a painting in oil, on pieces of canvas, which are afterwards joined to each other, and affixed to the wall. This great work is composed of four groups, united by episodial personages. The first is that of the poets. Homer, leaning on the sceptre of the pastor kings of the Iliad, presides at this solemn presentation. Behind him are Horace, Lucan, and Ovid, who show great eagerness to get a sight of Dante. The group of illustrious Greeks crowds upon the left of the poets. Alexander, Aristotle, Apelles, Socrates, and Alcibiades, are prominent; and the capital figure of the group is Aspasia, who stands erect, with her head gracefully inclined towards her shoulder, and her person enveloped in drapery of great elegance. The group of Romans, composed of Cincinnatus, Cato, and Marcus Aurelius, is opposite the last, and is equally fine.

Operative House-Painters' Association.—Endeavours are being made to associate the operative house-painters for mutual instruction and protection. There are several points in the address, which has been sent to us, that have our cordial support (the importance of establishing a library, acquiring information, increasing self-respect, and obtaining a place to meet in "*away from public-houses*"); but we must see the objects and plan of proceedings more clearly defined, before we say more. The last-named point is of vital importance: thousands are ruined through benefit clubs, and other associations for the operative, being held at public-houses.

Destruction of Weeds in Paved Yards and Courts.—The growth of weeds between the stones of a pavement is often very injurious as well as unsightly. The following method of destroying them is adopted at the Mint at Paris and elsewhere, with good effect:—One hundred pounds of water, twenty pounds of quicklime, and two pounds of flour of sulphur, are to be boiled in an iron vessel. The liquor is to be allowed to settle, the clear part drawn off, and being more or less diluted, according to circumstances, is to be used for watering the alleys and pavements. The weeds will not re-appear for several years.

Mediæval Architects.—According to the *Moniteur des Arts*, an accident has led to the discovery of the name, hitherto unknown, of the architect by whom the magnificent Hôtel de Ville of Louvain was erected. "He was, it seems, a certain Mattheus de Layens; a master mason of the town, who for nearly thirty years had handled the trowel for the magistrates, at the rate of four sous per day in summer, and less than three in the winter time." Such of our readers as have visited Louvain, will remember that the ancient drawing of the west front of the cathedral is preserved in the Town-hall. It is executed on vellum, 9 feet high, and 2 feet 9 inches wide.

Father Mathew's Tower at Mountpatrick.—A lofty double tower erected at Mountpatrick, by Mr. W. O'Connor, in commemoration of the reception of Father Mathew by the Londoners, in 1843, was opened publicly on the 9th inst. It is 100 feet high, and the principal apartment in it is 16 feet in diameter. The style adopted is Gothic, and the cost must have been considerable. Judging from two views of it, however, in the *Illustrated London News*, we cannot say much for the art in it. Besides a bust of the reverend gentleman, by Hogan, there is a stone statue of him on a pedestal of rock-work, at a short distance from the tower.

Fall of Party-wall in Rathbone-place.—Statements have been made to us to the effect, that want of care and right directions led to the slip of the party-wall in Rathbone-place. The matter is now before the referees, and we therefore withhold any remarks upon it.

Breakwater at Brighton.—The Chain Pier Company are about to construct a fixed breakwater at the south end of the pier, to facilitate the embarking and disembarking of passengers. It is designed by Sir Samuel Brown.

STREET LAMPS.—Sir: Might not an important improvement be effected, in the lighting of our streets, if the angular upper part of our gas lamps were made of looking-glass, or of some other reflecting surface, by which the light might be thrown down, instead of being wasted upwards as at present.—J. RODE.

NOTICES OF CONTRACTS, &c.

THE authorities of the Stamp Office having given us notice to discontinue the insertion of our list of contracts, &c., excepting as advertisements, we, in deference to their wishes, omit them for the present, but have taken steps to place the facts of the case properly before them, and, as we hope, remove their objections. In the meantime a list may be seen at our office.

TO CORRESPONDENTS.

"*External Colouring for Old Buildings.*"—Mode of making a permanent colouring seems a desideratum.

"*A Lady.*"—The term "properly throated" (not a common expression), would imply properly gathering in the square mouth of the flue, to prevent the smoke from hanging there.

"*W. L.*"—No license is necessary for a measurer of land. A license to value may be obtained at Somerset House.

"*Polytechnic.*"—The *Revue Generale de l'Architecture*, &c., was a periodical work, and has not been translated as a whole.

"*A. J. G.*"—Thanks.

"*H. Morrell*"—shall have our opinion when we have tried them.

"*Sassenach.*"—Apply to the director, Mr. Wilson.

"*Constant Reader.*"—We cannot assist him in finding work abroad.

"*H. L.*"—We have lost sight of the party named.

"*W. V.*"—Mr. B. is liable for the fees.

"*Fall of Houses, Brompton.*"—We cannot insert *anonymous* abuse.

"*I. B. C.*"—Write to Mr. Wright, Hanwell Brickfield.

"*R. S.*"—We shall be happy to look at the drawings if left for us, and will return them safely.

"*Architectural Chemistry.*"—The lectures were not published.

"*R. A. H.*"—"A window lighting a room from a staircase skylight," is liable for duty.

Received.—"X. Z. X.," "Plumbago," "Ponto," "A Subscriber," "Amateur," "E. H. M.," "J. G. Swindell," "L. H. I.," "Literary and Scientific Register and Almanac" for 1847. By Mr. Gutch (Longman). Silcock's Metallic Plane. Invitation to Mrs. Severn's Concert, to take place on the 3rd December.

"*Books and Addresses.*"—We have not time to point out books or find addresses.

ERRATUM.—The illustration of Sicilian Architecture, in the last number, should have been headed "Doorway at LABADIA in GIRGENTI," instead of Lagabia, Gargenti.

TO PROVINCIAL READERS.—In reply to complaints of the irregular delivery of THE BUILDER in provincial towns, we beg leave to state that it is invariably published by seven o'clock on Friday morning; and that the irregularity complained of rests entirely with the parties through whom it is obtained.

ADVERTISEMENTS.

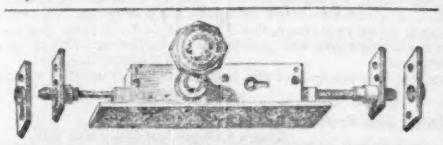
ROYAL POLYTECHNIC INTSTITUTION. By Permission.—Professor SCHONBEIN'S GUN COTTON, differing from all other specimens recently before the Public, is lectured on, with other Explosive Compounds, by Dr. Ryan, daily at half-past Three, and on the Evenings of Mondays, Wednesdays, and Fridays. The principal of the Electric Telegraph demonstrated by Professor Bachhoffner. The Oxyhydrogen and Opaque Microscopes, the Physioscope, Diving Experiments, the Dissolving Views, by Charles Smith, &c., &c.—Admission, 1s.; Schools, Half-price.

TO BUILDERS, PAINTERS, AND OTHERS.

MESSRS. WOOD and Co., GRAINERS and WRITERS to the Trade only.
62, WATERLOO-BRIDGE ROAD.
An Apprentice wanted.

TO ARCHITECTS, BUILDERS, &c.

GAS LAMPS, GAS BRACKETS, GAS PILLARS, BURNERS, &c. &c. In calling the attention of architects, builders, &c., to their assortment of Gas Furniture in general, C. DEBAUFER and SON respectfully announce they continue to fit up premises of every description on the most approved and newest system of gas fitting. An experience of forty years justifies us in making the above assertion.—P.S. Country orders attended to with dispatch.—10 and 11, Creed-lane, St. Paul's.



IMPORTANT TO ARCHITECTS, BUILDERS, AND CABINET MAKERS.

LEA'S PATENT DOUBLE-ACTION BOLT, combining Cheapness, Facility of Action, and Security; adapted for the Strongest Folding-doors as well as the most Elegant Chiffonier.
Agent, E. PARKS, 140, Fleet-street.

Best Patent Cut Clasp.

6d.	7d.	8d.	1s.	1s. 6d.	2s. 3d.
3d.	4d.	6d.	8d.	10d.	20d.

Best Patent Sash Line.

4s. 3d.	5s.	6s. 6d.	7s. 6d.	10s.	12s.
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Every description of Ironmongery equally low.

WORCESTER ENCAUSTIC TILES. Specimens of these beautiful Tiles in all their Varieties, may be seen and information obtained at the London Agents, Messrs. GRIEVE and GRELLIER, Marble-wharf, Belvidere-road, Waterloo-bridge, or at the Encaustic Tile Works, of Messrs. F. ST. JOHN G. BARR, and Co., Worcester.

ENCAUSTIC, VENETIAN, and other PATENT TILES and MOSAIC PAVEMENTS may be purchased at MINTON and Co.'s warehouse, 9, Albion-place, Surrey side of Blackfriars-bridge.—J. M. BLASHFIELD, Agent. The above tiles have lately been considerably reduced in price.
N.B. An assortment of plain and ornamental door furniture, slabs, and tiles for fire-places, &c.

TO BRICK AND TILE MAKERS.

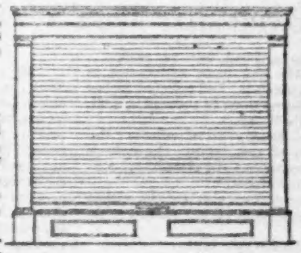
THE AINSLIE PATENT TILE MACHINE COMPANY (James Smith, Esq., of Deanstone, Chairman), invite attention to their improved Brick and Tile Machines, and to their new improved Patent Kilns for drying and burning Bricks and Tiles, by which a saving of from two-thirds to three-fourths of the fuel is effected, and all the articles are burnt equally without loss or damage. The Machines at work, and a model of the Kilns, to be seen, and all particulars to be obtained from Mr. JOHN PATON, Secretary, 193a, Piccadilly, London.—Agents wanted.

PEAKE'S TERRO-METALLIC TILES, PIPES, &c., of 100 sorts and sizes.—The Public is respectfully informed, that Mr. PEAKE has removed his Depot from Whitefriars to No. 4 WHARF, MACCLESFIELD-STREET, South, City Basin, London, where a large Stock is on Sale of genuine Terro-Metallic Goods. No Agent. Roofing in Grecian and Italian styles, other devices also, or plain; ridges and hips, with plain or capped joints, roll tops, or vertical ornaments; paving, in 6 in., 7½ in., and 9 in. blue and red squares, in 6 in. blue and red hexagons, and in 8 in. blue octagons, with 3 in. drab squares. Drains, many sizes, with butt or socket joints; conduits, which will not injure pure water; tubular and other flues, of proper material; channels, large clinker bricks, and outdoor paving; sundry wall-coping, fire bricks and tiles, garden-edging, chimney-tops, &c. The Tileries, Tunstall, Staffordshire, are near the centre of England, whence boats are sent to any inland place, or to the Mersey, for the coasts, the colonies, and elsewhere. A Wharf at Whitefriars to be Let for a term.

LIGHTNING CONDUCTORS FOR BUILDINGS.

A. SMITH'S PATENT COPPER WIRE ROPE is being daily employed for the protection of CHURCHES and other buildings from the effects of thunder storms; it possesses important advantages over other forms of conductors. References can be given where it has been applied for some time past to CHURCHES, PUBLIC and PRIVATE BUILDINGS, &c., &c. Its general adoption in the Naval and Mercantile Marine of this and other countries is the strongest possible EVIDENCE of its EFFICIENCY, &c.
A. SMITH begs the attention of those engaged in building to his IMPROVED PATENT PANELLED AND REVOLVING IRON SHUTTERS,—Also, the Patent Weather-tight Fastening and Cill Bar, for French Casements, which are so much admired for their security, simplicity, cheapness, and efficiency. Of the merits of his
Patent Double and Single Action Door Springs,
Improved Flooring Cramps,
Patent Wire Sash Lines, &c. &c.,
Little need be said, as they are pretty generally known and appreciated.
Manufactory for Iron Suspension, Sliding, and other Doors, Strong Rooms, Plain and Ornamental Palisading, Gates, and Columns.—Also, Metal Sashes, Shop-fronts, Stall-board Plates, Brass butt, and other Hinges. Buildings heated upon a new, safe, and superior plan.
Estimates given for every description of Metal-work.
A. SMITH, 69, Princes-street, Leicester-square, London.

IMPROVED PATENT CONVEX IRON REVOLVING SAFETY SHUTTERS.—Patent Panelled Iron Safety Shutters. PATENT OUTSIDE SHUTTER BLINDS.—PATENT CORRUGATED WINDOW BLINDS



The attention of Architects, Builders, and Blind Makers is requested to the IMPORTANT PATENTED IMPROVEMENTS in the above enumerated Articles, and inspection invited, at the Manufactory of the Patentees, R. HOWARD & Co. 115, Old Street, London.
The great importance of strength and stiffness in the Laths of REVOLVING IRON SHUTTERS, when required for security, is so obvious, that it is only necessary to point out the fact, that the Patent Convex Laths are twelve times stronger than the ordinary flat Laths (as shewn by the engravings and description), to insure their general adoption.
The Patentees invite attention to their greatly improved Gearing for Raising and Lowering their patent Shutters, which, possessing all the advantages of the endless screw (worm and wheel), cannot, even by wear, be liable to run down, and entirely avoids the necessity of using the ratchet wheel; it is at once simple and THOROUGHLY EFFECTIVE, and is SAFER and MORE DURABLE than any plan yet adopted for that purpose, thus rendering their patent Revolving Shutters the SAFEST and MOST EFFICIENT in use. These Shutters are fixed horizontally (either above or below the window or door), or vertically, for which position the great additional strength of the Convex Laths renders them peculiarly suitable.
REVOLVING IRON SHUTTERS, MADE OF THE COMMON FLAT LATHS, at a considerable reduction of price.
CAUTION.—The Patentees beg to caution all persons against Making or Using BENT or CONVEX LATHS for REVOLVING IRON SAFETY SHUTTERS (whether winding horizontally or vertically), so as to obtain increased strength and stiffness, as they thereby render themselves liable to legal proceedings for infringing this patent.
Engravings and Prospectuses will be forwarded on application.
DRAWN METALLIC SASH BARS, ASTRIGALS, MOULDINGS, STALL BOARD PLATES, &c.
Patentees and Manufacturers, R. HOWARD and Co., London.

SNOXELL'S PATENT SAFETY REVOLVING WOOD SHUTTERS.
Manufactory, 96, Regent-street, and 131, Chancery-lane.

THE Patentee having fixed a great number of his shutters in London, and given universal satisfaction, can confidently recommend them both for security and durability, the edges being sheathed with Iron. Their construction is so simple that the largest establishment can be opened or closed with the greatest possible ease without the use of machinery. Their superiority over other revolving shutters consists in their great strength and stiffness, being without metal hinges, consequently cannot rust, buckle, be strained, or get out of order, and are safer. Persons dissatisfied with the patent rising gear now used for iron shutters can have it removed, and the shutters made to draw up in any part of the premises with the slightest exertion, without machinery, thereby avoiding the unpleasant use of oil.

INJUNCTION.

BUNNETT and CORPE'S Patent REVOLVING IRON SHUTTERS.—Since the verdict found in favour of the Patentees, in the Court of Exchequer, in the action tried by order of the Court of Chancery, that Court has granted a perpetual Injunction for restraining all infringements of this Patent, and therefore all parties are hereby cautioned against infringing the same.
THE PRICES ARE GREATLY REDUCED, and BUNNETT AND CORPE'S PATENT IRON SHUTTERS ARE THE CHEAPEST AS WELL AS THE BEST. They are made with convex laths, if required. The worm and wheel motion for raising and lowering revolving iron shutters (as secured by this Patent) is the only safe and durable mode of effecting that object. In large shutters it is indispensable.
Some thousands of Bunnett and Corpe's Shutters have now been put up, without a single complaint of their want of strength or security; and nine years' practical experience (during which they have adopted every real improvement) enables the Patentees to challenge comparison with any others. They will guarantee all Shutters put up by them to keep in order, and last twice as long as any with thin convex laths.
B. and C. also manufacture REVOLVING WOOD SHUTTERS (the Patent for which has expired), at the same prices as other makers, but greatly superior, being fitted with their patent raising gear, and proper metallic hinges, without which no shutter can be safe or durable.
BUNNETT and CORPE are likewise Patentees and Manufacturers of METALLIC SASH-BARS, MOULDINGS, &c., IN BRASS, COPPER, OR ZINC, FOR SHOP FRONTS, WINDOWS, SKYLIGHTS, AND VARIOUS OTHER PURPOSES.
Shop-fronts fitted with Iron Shutters, Patent Brass or Zinc Sashes, Plain or ornamental, handsomely Engraved, Moulded, Stall-board Plates, best Plate Glass, and Internal Brass Fittings of all kinds, superior in quality and workmanship, and lower in price than any other house.
Contracts taken in Town or Country.
Metal Drawing and Stamping for the Trade.
Office at No. 26, Lombard-street, London; Works, at Deptford, Kent.
Steam-engines, Sawing, Planing, and Moulding, Cutting-machines on Improved Plans, especially adapted for Builders' purposes, may be seen in operation at the Works.

TO ARCHITECTS, BUILDERS, AND THE PUBLIC IN GENERAL.

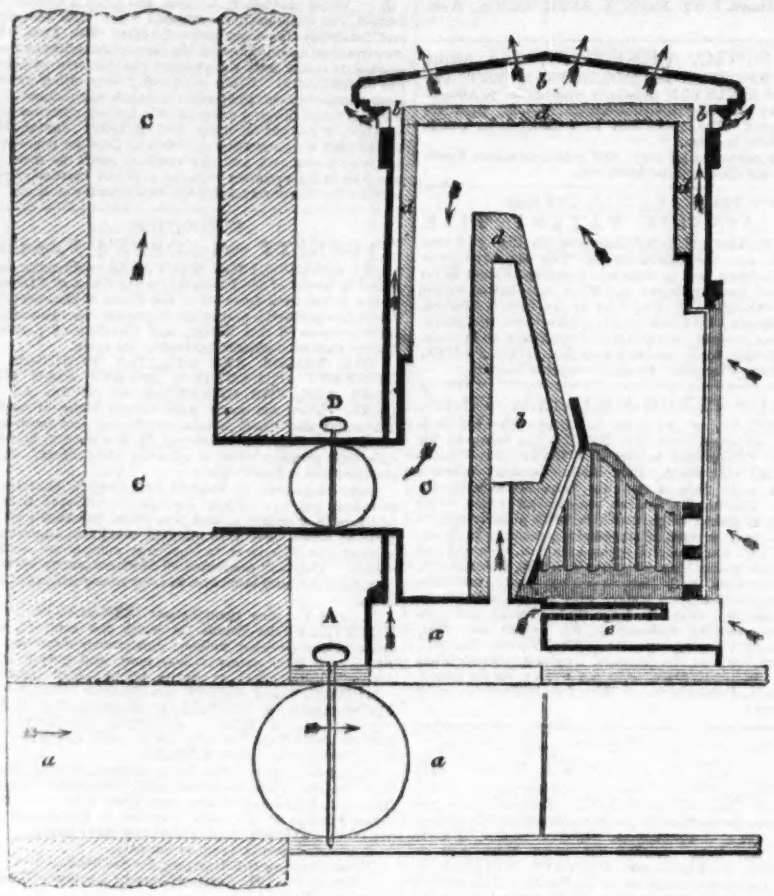
GEORGE JENNINGS, of 29, GREAT CHARLOTTE STREET, BLACKFRIARS ROAD, begs to call the attention of Architects, Builders, &c., to his REGISTERED FASTENING for SHOP SHUTTERS, &c., which entirely supersedes the use of shutter-bars. Thereby effecting a great saving of labour, as by the old method, the bar has to pass through the hands of some one upwards of six hundred times in twelve months, which tends to deface the whole front more or less every time the bar is put up or removed. The fastening is secret, simple, and sure, in its action, and can be affixed to any shop-front in two hours, without any alteration to the shutters. New fronts fitted at a less expense than a shutter-bar would amount to. A liberal allowance to the trade, and any further information may be obtained by inclosing a postage stamp to the above address.—A Model may be seen at the office of "The Builder."

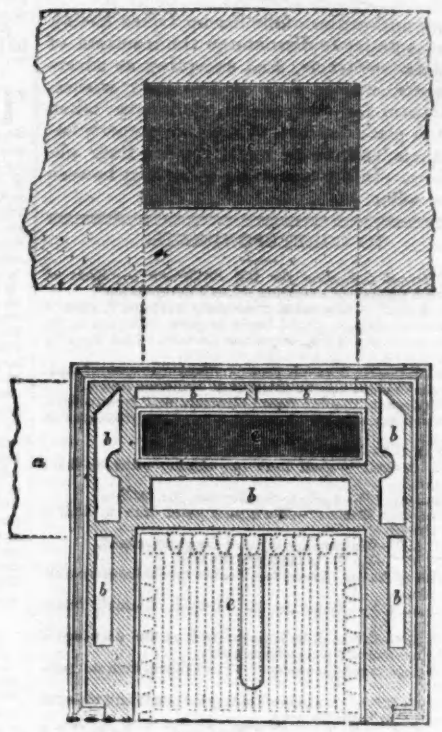
PAVING, 2s. 9d. PER SQUARE YARD. Basements, Foot walks, Malt-houses, Corn Stores, Floors of Warehouses, and every description of pavement laid down at the above low price, and the work guaranteed.—Apply to JOHN PILKINGTON, POLONCEAU'S BITUMEN PAVEMENT OFFICE, 15, WHARF-ROAD, CITY-ROAD.—N.B. Country Agents and Railway Engineers and Contractors supplied with the best bitumen at 27s. 6d. per ton.

COMMISSIONERS OF FINE ARTS' REPORT ON THE MEANS OF PREVENTING DAMP IN WALLS.

THE DIRECTORS of the SEYSSEL ASPHALTE COMPANY have much pleasure in recommending to the notice of Architects, Builders, and others, the application of the ASPHALTE of SEYSSEL as the only effectual means of preventing DAMP rising in WALLS. J. FARRELL, Secretary.
Seyssel Asphalte Company's Works,
"Claridge's Patent."
Stangate Depôt, London.
The following account of its application is extracted from "The Appendix to the Commissioners of Fine Arts' Report," page 18:—
"In 1839 I superintended the construction of a house of three stories on the Lac d'Enghien. The foundation of the house is constantly in water, about 19½ inches below the level of the ground floor. The entire horizontal surface of the external and internal walls was covered, at the level of the internal ground-floor, with a layer of SEYSSEL ASPHALTE, less than half an inch thick, over which coarse sand was spread.
"Since the above date no trace of damp has shewn itself round the walls of the lower story, which are for the most part painted in oil of a gray stone colour. It is well known that the least moisture produces round spots, darker or lighter, on walls so painted, yet the pavement of the floor, resting on the soil itself, is only about 2½ inches above the external surface of the soil, and only 19½, at the utmost, above that of the sheet of water.
"The layer of Asphalte having been broken and removed, for the purpose of inserting the sills of two doors, spots indicating the presence of damp have been since remarked at the base of the door-posts."

CUNDY'S PATENT IMPROVED OPEN FIRE PLACE, HOT AIR, VENTILATING STOVE.





PLAN.

Description of Diagram.

a a a a Fresh air channel, for admission of external air.
b b b b Hot air chambers (formed with artificial stone, *d d d d*) through which the air passes into the room, and is heated without being injured.
C C C The direction the smoke and vitiated air takes after it has passed through the fire and heated the artificial stone of the hot air chambers.
e Blow pipe to preserve perfect combustion placed immediately underneath the grating of fire place.
A and D are regulators.
The arrows shew the way the external fresh air is admitted, next passing through the hot-air chambers into the room, and lastly taken out of the room through the fire and up the chimney—thus completing ventilation.

This STOVE embraces the following most important principles connected with the economy of

WARMING AND VENTILATING CHURCHES,

And other Public and Private Buildings, viz.:—

HEAT by RADIATION from the Open Fire.

HEAT by CONDUCTION.—A copious and continuous stream of PURE WARM AIR is conducted into the room through the large Stove, at a regulated rate, by means of an air channel underneath the floor, communicating with the external air.

HEAT by REFLECTION.—The external casing of the Stove becoming warm, communicates its heat to the surrounding atmosphere.

VENTILATION produced by the OPEN FIRE—which will carry off the Vitiated Air through the chimney at the same rate the Pure Air is conducted into the room through the interior HEATING APPARATUS of the Stove, thereby keeping up a regular and agreeable system of Ventilation.

ECONOMY of FUEL.—This Stove, from the peculiar construction of the Fire Place, will produce a most BRILLIANT FIRE with the least possible quantity of fuel, and will continue to burn so long as any particle of coal remains.

TESTIMONIALS AFTER A WINTER'S TRIAL.

Gothic Villa, St. John's Wood, Oct. 22, 1846.

SIR,—Perhaps there are few private individuals who have had more experience in stoves than I have had; I have tried most of the newly invented ones, and rejected all but yours, two of which I have tried in my temporary church, and found them to succeed so well, that I have introduced them into All Saint's Church, St. John's Wood.

The following reasons induce me to approve of them:—Exemption of effluvia; the emission of a great body of pure warm air; the perfect system of ventilation; the sight of the fire; the consumption of vitiated air; the little attention requisite; the cleanliness connected with them; and though last, not least, the great economy of fuel.

All more I can say in favour of your stoves is, that whenever I require a stove, either for my house or church, I shall purchase your patent, and recommend all my friends to do the same. Yours truly,

ED. THOMPSON, M.A.
Incumbent of All Saint's, St. John's Wood.

29, Charter-house-square, Monday, Feb. 17, 1846.

DEAR SIR,—The Stoves which you have recently erected in my church have been highly successful, and I have great pleasure in expressing to you the entire satisfaction which they have given to all parties. The church, which was notoriously noted for its coldness and bad ventilation, is now most agreeably warmed and well ventilated. I shall be most happy, on any occasion, to bear testimony to the excellency of your stoves; and I will endeavour, to the best of my power, to make them known, and I will certainly recommend them to my friends.

I remain, Dear Sir, yours faithfully,
JN. WM. ROGERS, St. Thomas's Charter-house.

St. Thomas's, Charter-house.

We, the undersigned, do hereby certify, that during the last three winters we suffered severely from the cold in the Church of St. Thomas's, Charter-house, although we had three large Arnott's Stoves, which consumed one sack and half of coals each day they were lit. The building was never warm; in consequence of which the congregation fell off, though we had a zealous preacher in the Rev. Dr. James. We have now two of Cundy's Patent Stoves, which consume but one cwt. of coal per day between them, and they impart to the church a comfortable heat and ventilation.

WILLIAM BUSHMAN, Verger.
THOMAS GEORGE, Beadle.

St. John's, Fulham, 2nd May, 1846.

My Dear Sir,—I have very great pleasure in giving my testimony to the efficiency of your Stove, as combining the double advantage of thoroughly warming and constantly ventilating any large church or building. Your invention appeared to me to be in theory all that could be desired; and I can honestly say, that I have not yet discovered the point in which the practice falls short of the theory.—The area of my church is computed to be nearly 200,000 cubical feet, and though a second stove will be required, the one already erected has fully answered my highest expectations, and realized all that you had given me to expect. If confirmation were needed for evidence of its efficiency, I might further state, that I had peculiar difficulties to contend with,—that various attempts had been made, and that every attempt had proved a signal failure,—that I was exposed to the charge of boldness in attempting what had baffled others; but that such is the power, the efficiency, and the comfort communicated by your Stove, that I know not of a dissentient voice, and have heard only of approval with unanimous consent.—I might add, that I was first led to the making inquiry respecting your stove, having gathered indirectly, that a disposition not unfavourable towards it was entertained in a certain high quarter, where, on account of ability of discernment, the smallest approach to approval must carry with it great weight.—I remain, Dear Sir, yours faithfully,
WILLIAM GARRATT, Minister of St. John's, Fulham.

Letter from the Rev. MATTHEW O'BRIEN, (Professor of Natural Philosophy and Astronomy), M.A., F.R.S., &c., King's College.

Upper Norwood, 22nd June, 1846.

I beg to certify that one of Mr. Cundy's Patent Stoves was put up in my lecture room at King's College, last year, in place of a common stove (of Arnott's construction, I believe). I have no hesitation in saying from actual experience, that Mr. Cundy's Stove is far superior both in producing warmth over the whole room, and in promoting ventilation, without disagreeable currents of air, or close smell. MATTHEW O'BRIEN.

*** Since this stove was put up, four others have also been fixed, one of which is placed in the Medical Library.

Letter from Professor BRADLEY.

King's College, London, July, 1846.

Sir,—I am happy to be able to bear testimony to the efficiency of your stove, which is fixed in my lecture-room at this Institution. It seems to have all the essential requisites of a good stove, a rapid draught, freedom from all smoke, and from that smell which arises from iron, heated in contact with the air of a dwelling-room, which is entirely avoided by your arrangement.—I am, Sir, your obedient Servant, THOMAS BRADLEY.

To be had of the Manufacturers,

MESSRS. DOWSON, 69, WELBECK-STREET, CAVENDISH-SQUARE,

Where they may be SEEN IN OPERATION, and where also may be seen an ELEGANT assortment of REGISTER and other STOVES, FENDERS, CULINARY APPARATUS, &c. &c. ARCHITECTS and BUILDERS supplied with IRON and BRASS CASTINGS, at Messrs. DOWSON'S FOUNDRY, 5, SEYMOUR-PLACE, BRYANSTON-SQUARE. Smith's Work, Gas Fittings, and all other works appertaining to a Smith and Founder, undertaken at estimated prices.

The Builder.

No. CC.

SATURDAY, DECEMBER 5, 1846.

SIR JOHN SOANE'S life, as a man, is yet to be written. It would be a strange and not uninstructive relation; and, if it can be obtained in its fulness, and free from bias, is much to be desired. In a few years it may not be possible. His career as an artist was ably sketched by a friendly hand, within a week after his funeral;* but something more concerning the architect of the Bank, and the founder of an extraordinary museum which will one day be made more available to the public than it is now, is wanted, and will be even more sought for hereafter than at this time. His architectural works are being rapidly effaced; there is no worthy engraved record of his designs; his opinions, so far as we know, are only to be found in his locked-up MS. lectures; and although so recently dead, he is positively a man unknown to the rising generation of architects.

Soane, or Soan, as he at first wrote himself (and even this, we have heard was not his right name), rose like Sir Robert Taylor, of whom we gave a notice a few weeks ago, from the humblest position to the summit of his profession; amassed a large fortune; and refused a baronetcy, perhaps to punish a son. He had much shrewdness, great ingenuity, and considerable love for art. His munificence on special occasions was unbounded, and his bequest for the relief of architects' families will keep his name in grateful remembrance long after his failings are forgotten.

With the view of placing before our readers the most important works and the principal events in his life, in few words, we shall next week give a valuable chronological statement by Mr. George Bailey (long a confidential and zealous assistant of Sir John, and now the curator of his museum), which was originally appended to Mr. Donaldson's memoir.

Mr. Tite, on Monday last, laid before the Institute of Architects, his notes of part of the course of lectures delivered by Sir John Soane to the students of the Royal Academy in 1817. He did this for three reasons: first, to recur to a period of what he considered, most successful teaching in the life of a professor who was one of the most liberal patrons of the Institute; secondly, to exhibit part of the series of drawings, used to illustrate the lectures, which he was enabled to do by the kindness of Mr. Bailey, the curator of the Soane Museum; and, thirdly, that he might urge again upon the students, the value of making notes of papers read to them. On this latter point he laid considerable stress. To use his own words:—

"I have often urged upon the students of the Institute, the advantage of taking notes and memoranda of the various papers read, and of the discussions that follow. The obvious advantages of such a proceeding, one would imagine would require no advocacy in argument,—and yet, even with the stimulus of a most handsome prize, the recommendation I have myself given so often from the chair, seems in the result to be to a considerable extent disregarded. The reasons of this appear to be, firstly, that it is much more agreeable to listen to be amused than to listen to be instructed—and next it is suggested, that the notes published in THE BUILDER are more ably condensed than can be obtained by the student in his own way. The first reason I think probably suggests the second, and I answer that all good teaching must be real—that in our universities and schools teaching by lectures is universal; but that merely listening makes such teaching valueless; the mind wanders; the thoughts are turned aside by the object before the student; memory is imperfect, and then again the subjects, the remarks, and the opinions of the lecturer cannot be referred to with the vividness and the interest given by a memorandum made at the time. Then, again, all these reasons apply with the same or greater force, to the suggestion that the lecture or paper is reported. It may be that want of leisure or of inclination prevents the reading with attention, if at all; and the absence of the illustration, which may have been forgotten, deprives the instruction of half its value.

From all these considerations, I urge upon my young friends the advantage of making notes for themselves, in order that they may profit by the teaching; and I assure them, that though at the time they may even find the subject dry, and the exercise fatiguing, they will often be compensated in after life by the possession of facts, the importance of which they did not perceive at the moment, and that habit will make even the labour of note taking agreeable and amusing."

After alluding briefly to the principal events in Sir John Soane's life, he proceeded to say, that the scope and design of the series of lectures to which his notes referred, were the general principles and history of architecture, and its practical application. He should confine himself on the present occasion to the three first; and had to remark, that Mr. Bailey had obtained for him some extracts from the lectures themselves, to render his own notes clearer in parts. The first of these extracts shewed the intention of the lecturer.

"I shall endeavour," Soane said, "to give the result of a life of study and application in the pursuit of architectural knowledge, in plain and simple language, in the manner as, I hope, will be found most useful to the young student in our art, and the best calculated to promote a general knowledge of architecture, and a due appreciation of its extensive powers to add to the charms of society."

He combatted very strenuously the doctrine of Rousseau, propounded at Dijon, that the arts were injurious to morals, and claimed for architecture a high place amongst them, on the ground that the other arts were subservient to architectural decoration. It was necessary, however, that architects should not be mere copyists:—

"'Painting and sculpture (says Sir Henry Wotton) are two arts attending on architecture, like two of her principal gentlewomen, to dress and trim out their mistress;' and it may be added, that if the architect does not think and feel as a poet,—combine and embellish as a painter,—and execute as a sculptor, he will never reach the excellence of a Palladio, a Jones, or a Wren. Such a man may be useful as a builder, but he will never rise in his profession, above that mediocrity which the learned professor of painting* has so justly defined to be a state that art can never permit."

He agreed with Vitruvius in thinking it necessary that an architect should understand not merely geometrical drawing, but perspective. Geometry was essential to him, and arithmetic too, said Mr. Tite, as we too well know in these days. Vitruvius strongly inculcated attention to moral duties, and so did Soane as the first requisite for honourable success. In connection with this, Mr. Tite commented on what he considered our present absurd mode of payment to architects, which, if an architect did not always make his duty to his employer overrule all personal considerations, would lead to evil.

Under Colbert, an Academy of Arts was established in France; in England it was long before similar advantage was given to the arts; the Duke of Richmond's gallery and the Incorporated Society of Artists, afforded the only opportunities to artists till the establishment of the Royal Academy in the reign of George III. Tracing the history of architecture amongst the Egyptians, Greeks, and Romans, he described various buildings in each country. Like the pyramids of Egypt, the Mausolea of Adrian, Caius Cestus, and Cecilia Metella, although immense masses, were calculated only to contain one body. He objected to the use of caryatides in modern buildings. The application of ancient examples required judgment and taste. Nothing should be admitted that was not founded on principles. Scale made a great difference The application of the "orders" one over the other at the Coliseum, was effective, while at Castle Ashby (the comparative smallness of which was shewn by drawings) it was absurd. Amongst instances of a bad application of ancient examples, he instanced the arch at Wilton, with the equestrian figure of Marcus Aurelius upon it, which was placed on a hill with steps up to it, so that no carriage could pass through it.

The drawing of this arch, which has been appealed to lately in connection with the preposterous conjunction at Hyde-park-corner, enabled Mr. Tite to point out how widely different the proportion of the figure to the arch was, in this example at Wilton, from that at Hyde-park-corner, and to say one more word in utter condemnation of the latter arrangement.

Returning to the architecture of the Greeks, Soane said they went to nature for their models and were right in doing so. He considered (we don't, by the way), that they derived their architecture from the wooden huts.

"The primitive huts and cabins were, according to the same writers,* formed with the trunks and branches of trees, and the roofs covered with reeds, mud, and clay; and in the Iliad we read,

> "Pelides lofty tent,
> Of fir the roof was raised, and cover'd o'er
> With reeds, collected from the marshy shore."

Triglyphs, to be consistent with principle, should not be used inside. (?)

The finest examples of Greek art he thought perfect; he said:—

"In the temples of Minerva and Theseus, we have simplicity of form, and unity of parts, combined with fitness;—there is a grandeur and solemn majesty in them, mixed with a soft repose,—a depth of light and shade, with contrast and variety, regularity and uniformity, making together so perfect a whole as can only be surpassed by the works of the Great Architect of the Universe, who made 'this brave overhanging firmament,—this majestical roof fretted with golden fire.'"

The second lecture treated chiefly of the orders and their application in the ancient temples, the peculiarities of which were pointed out. These, he said, should be studied:—

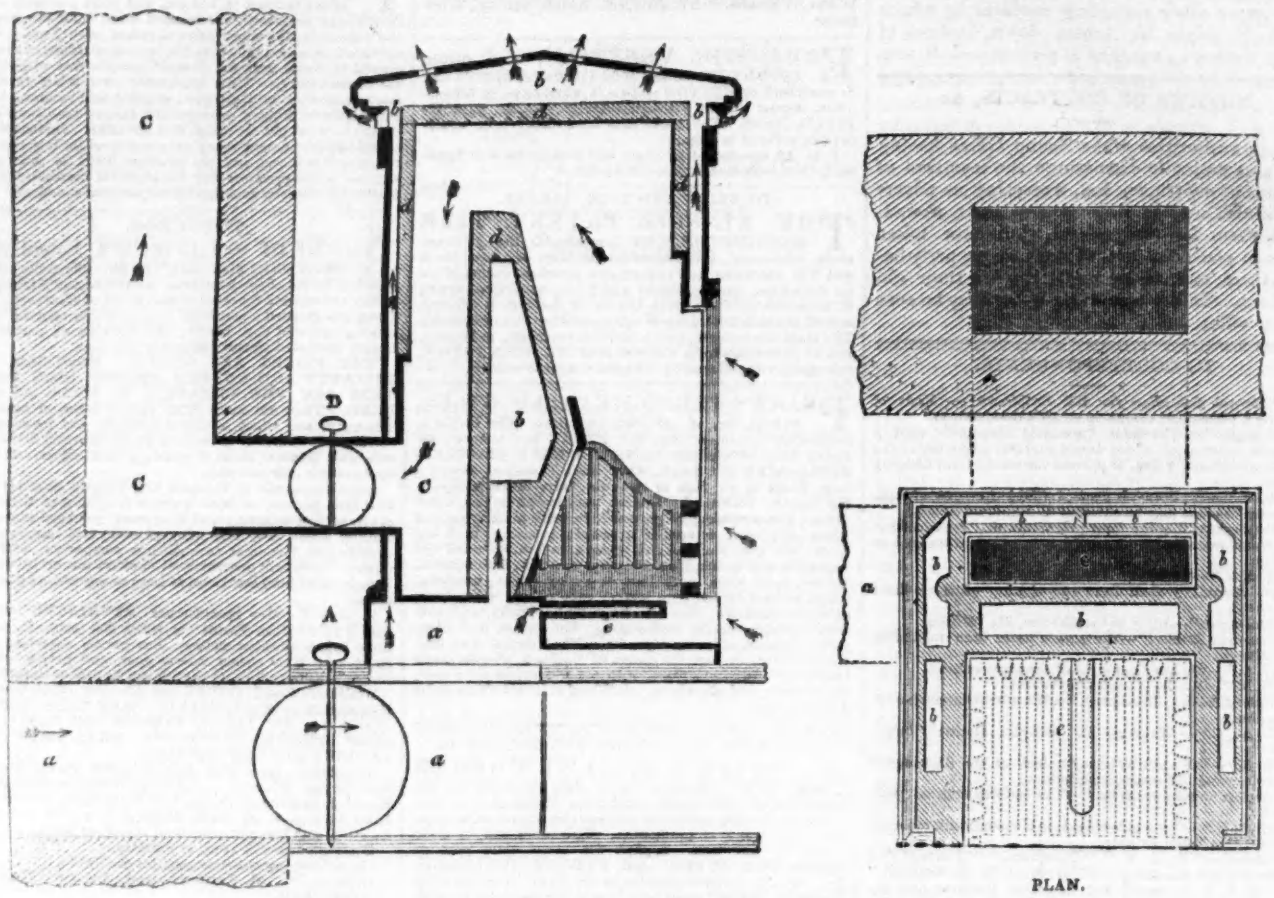
"Although temples are now only required, and that but occasionally, in pleasure-grounds, yet such principles of beauty, proportion, and harmony, will be acquired from the study of these ancient buildings as will apply generally; the student should therefore be fully acquainted with the different forms and constructions of the temples of paganism. In them he will discover many of the great principles of art,—in them he will learn many of the laws of

* "A Review of the Professional Life of Sir John Soane, Architect, R.A., &c." By T. L. Donaldson, Hon. Sec. Institute of Architects, &c. Williams, 1837.

* Fuseli.

* Herodotus, Vitruvius, &c.

CUNDY'S PATENT IMPROVED OPEN FIRE PLACE, HOT AIR, VENTILATING STOVE.



PLAN.

Description of Diagram.

a a a a Fresh air channel, for admission of external air.
b b b b Hot air chambers (formed with artificial stone, *d d d d*) through which the air passes into the room, and is heated without being injured.
C C C The direction the smoke and vitiated air takes after it has passed through the fire and heated the artificial stone of the hot air chambers.
e Blow pipe to preserve perfect combustion placed immediately underneath the grating of fire place.
A and D are regulators.
The arrows shew the way the external fresh air is admitted, next passing through the hot-air chambers into the room, and lastly taken out of the room through the fire and up the chimney—thus completing ventilation.

This STOVE embraces the following most important principles connected with the economy of

WARMING AND VENTILATING CHURCHES,

And other Public and Private Buildings, viz.:—

HEAT by RADIATION from the Open Fire.

HEAT by CONDUCTION.—A copious and continuous stream of PURE WARM AIR is conducted into the room through the large Stove, at a regulated rate, by means of an air channel underneath the floor, communicating with the external air.

HEAT by REFLECTION.—The external casing of the Stove becoming warm, communicates its heat to the surrounding atmosphere.

VENTILATION produced by the OPEN FIRE—which will carry off the Vitiated Air through the chimney at the same rate the Pure Air is conducted into the room through the interior HEATING APPARATUS of the Stove, thereby keeping up a regular and agreeable system of Ventilation.

ECONOMY of FUEL.—This Stove, from the peculiar construction of the Fire Place, will produce a most BRILLIANT FIRE with the least possible quantity of fuel, and will continue to burn so long as any particle of coal remains.

TESTIMONIALS AFTER A WINTER'S TRIAL.

Gothic Villa, St. John's Wood, Oct. 22, 1846.

SIR,—Perhaps there are few private individuals who have had more experience in stoves than I have had; I have tried most of the newly invented ones, and rejected all but yours, two of which I have tried in my temporary church, and found them to succeed so well, that I have introduced them into All Saint's Church, St. John's Wood.

The following reasons induce me to approve of them:—Exemption of effluvia; the emission of a great body of pure warm air; the perfect system of ventilation; the sight of the fire; the consumption of vitiated air; the little attention requisite; the cleanliness connected with them; and though last, not least, the great economy of fuel.

All more I can say in favour of your stoves is, that whenever I require a stove, either for my house or church, I shall purchase your patent, and recommend all my friends to do the same. Yours truly,

ED. THOMPSON, M.A.
Incumbent of All Saint's, St. John's Wood.

29, Charter-house-square, Monday, Feb. 17, 1846.

DEAR SIR,—The Stoves which you have recently erected in my church have been highly successful, and I have great pleasure in expressing to you the entire satisfaction which they have given to all parties. The church, which was notoriously noted for its coldness and bad ventilation, is now most agreeably warmed and well ventilated. I shall be most happy, on any occasion, to bear testimony to the excellency of your stoves; and I will endeavour, to the best of my power, to make them known, and I will certainly recommend them to my friends.

I remain, Dear Sir, yours faithfully,
JN. WM. ROGERS, St. Thomas's Charter-house.

St. Thomas's, Charter-house.

We, the undersigned, do hereby certify, that during the last three winters we suffered severely from the cold in the Church of St. Thomas's, Charter-house, although we had three large Arnott's Stoves, which consumed one sack and half of coals each day they were lit. The building was never warm; in consequence of which the congregation fell off, though we had a zealous preacher in the Rev. Dr. James. We have now two of Cundy's Patent Stoves, which consume but one cwt. of coal per day between them, and they impart to the church a comfortable heat and ventilation.

WILLIAM BUSHMAN, Verger.
THOMAS GEORGE, Beadle.

St. John's, Fulham, 2nd May, 1846.

My Dear Sir,—I have very great pleasure in giving my testimony to the efficiency of your Stove, as combining the double advantage of thoroughly warming and constantly ventilating any large church or building. Your invention appeared to me to be in theory all that could be desired; and I can honestly say, that I have not yet discovered the point in which the practice falls short of the theory.—The area of my church is computed to be nearly 200,000 cubical feet, and though a second stove will be required, the one already erected has fully answered my highest expectations, and realized all that you had given me to expect. If confirmation were needed for evidence of its efficiency, I might further state, that I had peculiar difficulties to contend with,—that various attempts had been made, and that every attempt had proved a signal failure,—that I was exposed to the charge of boldness in attempting what had baffled others; but that such is the power, the efficiency, and the comfort communicated by your Stove, that I know not of a dissentient voice, and have heard only of approval with unanimous consent.—I might add, that I was first led to the making inquiry respecting your stove, having gathered indirectly, that a disposition not unfavourable towards it was entertained in a certain high quarter, where, on account of ability of discernment, the smallest approach to approval must carry with it great weight.—I remain, Dear Sir, yours faithfully,
WILLIAM GARRATT, Minister of St. John's, Fulham.

Letter from the Rev. MATTHEW O'BRIEN, (Professor of Natural Philosophy and Astronomy), M.A., F.R.S., &c., King's College.

Upper Norwood, 22nd June, 1846.

I beg to certify that one of Mr. Cundy's Patent Stoves was put up in my lecture room at King's College, last year, in place of a common stove (of Arnott's construction, I believe). I have no hesitation in saying from actual experience, that Mr. Cundy's Stove is far superior both in producing warmth over the whole room, and in promoting ventilation, without disagreeable currents of air, or close smell. MATTHEW O'BRIEN.

*** Since this stove was put up, four others have also been fixed, one of which is placed in the Medical Library.

Letter from Professor BRADLEY.

King's College, London, July, 1846.

Sir,—I am happy to be able to bear testimony to the efficiency of your stove, which is fixed in my lecture-room at this Institution. It seems to have all the essential requisites of a good stove, a rapid draught, freedom from all smoke, and from that smell which arises from iron, heated in contact with the air of a dwelling-room, which is entirely avoided by your arrangement.—I am, Sir, your obedient Servant, THOMAS BRADLEY.

To be had of the Manufacturers,

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